SUCCESS IN REFERENTIAL COMMUNICATION

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Of all affairs, communication is the most wonderful. That things should be able to pass from the plane of external pushing and pulling to that of revealing themselves to man, and thereby to themselves; and that the fruit of communication should be participation, sharing, is a wonder by the side of which transubstantiation pales.

JOHN DEWEY, "Experience and Nature"

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Abstract

In verbal communication we constantly use singular terms with the intention to refer an audience to certain objects we have in mind. The central question that I will be concerned with in my thesis concerns the conditions under which such referring acts are successful. That is, what must be the case that a hearer can be credited with understanding the referential use of a singular term by some speaker? Like other writers I locate the interest in this question in the following tension that arises with regard to it: on one hand it seems that the object referred to in a referring act should be constitutive for communicative success, that is agents will succeed in this form of communication if and only if their underlying thoughts refer to the same object in the world. But on the other hand it seems that communicative success in referring acts cannot be *object-dependent* in such a way, as examples similar to Frege's Hesperus-Phosporus one or certain 'empty' cases like children's uses of the name 'Santa Claus' show. The aim of my thesis is to arrive at a satisfying account of success in referring acts which resolves this tension. In this regard various traditional and recent accounts will be discussed, in particular the prominent Fregean one which requires identity in the entertained modes of presentation for communicative success, and Evans' (1982) hybrid account that combines an external success condition with a Fregean one. Yet it will be argued that all those accounts fail on descriptive grounds. An alternative account of communicative success will be proposed which in some aspects closely resembles Evans' one but which also departs from it in crucial ways. First, a different Fregean success condition will be appealed to, and secondly also the distinction between cases of referential communication which are object-dependent and those which are not will be drawn along different lines. *Perception-based cases* where one intends to refer to an object currently perceived are considered to be object-dependent, whereas other cases, in particular the *communication-based* ones where one intends to refer to an object one has heard of from others, are not treated in the same way. The resulting account will allow us to overcome the problems faced by previous accounts.

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Conventions

For clarity and simplicity I have adopted the following conventions: Italics are used for variables and to highlight important notions, in particular when they get introduced. Single quotes are put around words or sentences that are being talked about. Double qotes are used for direct quotation, and to register a deliberate distance from a particular phrasing. The pronoun 'he' is normally used without the implication of gender.

Introduction

1. The Issue

People communicate with each other by using language, for instance by making statements like (1) or asking questions like (2):

(1) Caesar was murdered.
(2) Who murdered Caesar?

In communicating with each other they can *succeed*, and in fact seem to do so most of the time, but they can also *fail*. Commonly it is said that for communication to succeed, the hearer must *understand* the speaker's words. This raises the question, under which conditions a hearer can be credited with understanding the speaker's words. For instance, what must be the case in order that someone can be credited with understanding my assertion of (1). In this work the question regarding what understanding in communication consists in will be addressed in more detail. Yet it will not be addressed in its most general form, but with regard to a certain type of communication, namely *referential communication*. By this I mean those cases of communication where a speaker uses a singular term or some other expression with the intention to refer an audience to a particular object he, the speaker, has in mind. For instance in uttering (1) or (2) I am using the proper name 'Caesar' in such a *referring* or *referentially intended* way. Now whether one understands these utterances depends in part on the success of the "constituent" *referring acts*. That is, without understanding my use of the proper name 'Caesar' one will not understand my assertion of (1), at least not in any complete sense. The central question that I

will address in this work concerns the conditions under which a referring act or simply referential communication is successful. That is, what must be the case for a hearer to be credited with understanding the referential use of a singular term by a speaker?[1]

Prima facie one might think that answering this question should be quite easy. For given that the speaker's underlying aim in a referring act is to refer a hearer to a particular object, then the hearer will have understood such an act if and only if he recognizes or identifies the respective object the speaker intended him to refer to. That is, he must simply come to entertain a thought or come to be in some mental state which refers to the same object as does the thought or mental state which underlies the speaker's referring act. For instance you will have understood my referential use of 'Caesar' in asserting 'Caesar got murdered' if and only if you come to entertain a thought which refers to the same object as does my underlying thought, which is the Roman emperor Caesar.

Despite its intuitive plausibility this simple *object-dependent* account of success in referential communication - which makes communicative success dependent on reference to particular objects in the world - faces severe problems. One central problem arises with regard to Fregean style examples of the following kind: imagine that you come across one of those shops which have a TV screen in the window connected to a camera that shows all the people passing by. In this particular case the camera is installed in such a way that you can only see your back on the screen, and thus it can happen quite easily that although you see yourself you do not recognize the person you see as yourself. Now assume that on a crowded shopping day you are just passing by that window and you hear a man saying near to you:

(3) You have lost your bag!

Now it is possible that you see the man who said this on the TV screen and you also see the person who is being addressed, but you do not recognize that it is you who is being addressed. In such a case you will come to entertain a thought which refers to the same object as does the speaker's thought, namely to you, yet in a crucial sense you do not understand his referential use of the pronoun 'You'. For although you perceptually recognize the person being addressed you do not recognize that it is you who is being addressed. Yet it seems that just this would be required for complete communicative success. This shows that requiring of the hearer to entertain a thought which refers to the same object as the speaker's

[1] Throughout this work the terms *referring act* and *referential communication* will be used interchangeably.

thought cannot be sufficient for the hearer's understanding of the speaker's referring act.

In the light of such Fregean-style examples some have proposed to modify the above object-dependent account by making communicative success also dependent on the entertained *modes of presentation* under which the communicating agents think of the purported referent. Such a Fregean move has been made for instance by Evans (1982) who writes:

> "... understanding the remarks we are concerned with requires not just that the hearer think of the referent, but that he think of it in the *right way*." (p. 315)

That is for a referring act to succeed, the hearer must, at least in some cases, not only entertain a thought that refers to the same object as does the speaker's underlying thought, but in addition the referent must also be presented to him in a certain way, that is he must think of it under a certain mode of presentation. For instance in the above camera example communication fails because the hearer does not come to think of the referent in the right way, which would be something like the self mode of presentation, whatever that is. Thus according to such a proposal, which has also been put forward by Recanati (1993) recently, entertaining thoughts with the same referent will only be a necessary criterion for successfully understanding a referring act, but not a sufficient one.

Unfortunately, even this modified object-dependent account of communicative success in referring acts faces severe problems. First of all, it is not clear what the relevant modes of presentation are which are required for the understanding of the various kinds of singular terms. But more importantly, as certain examples suggest, agents can succeed in referential communication even if they are entertaining thoughts which do not refer to any objects in the world at all, and thus sameness in reference could not even be a necessary condition for communicative success. Imagine for instance that there had never been an ancient Greek city called 'Troy' and that all the events that allegedly had taken place in connection with this city had entirely been invented by Homer. This would have the consequence that in using the name 'Troy' as in (4) we would up to now always have failed to refer to any particular place or object:

(4) Troy was discovered by Schliemann.

Nevertheless it seems that we have perfectly understood each other when using this name in communication. For whether the name 'Troy' has a referent seems in a certain sense irrelevant for the success of our communicative efforts. Thus, what

this and similar examples suggest is that coming to entertain thoughts which refer to the same object in the world cannot even be a necessary condition for the understanding of referentially used singular terms, as assumed above under the modified object-dependent account.

What might be suggested in light of these problems is to account for success in referring acts solely in terms of Fregean modes of presentation under which agents are assumed to think of the alleged referents of singular terms. For it seems plausible that agents can attach them to referential uses of such expressions even when their underlying thoughts refer to no objects in the world. For instance our uses of the name 'Troy', even if they had been empty, would nevertheless have involved certain modes of presentation of a city. Accordingly it seems promising to account for success in referring acts solely in terms of such modes of presentation. This kind of proposal has been associated most prominently with the work of Frege from which the following account can be derived: a hearer will have understood the referential use of a singular term *t* by a speaker if he comes to attach the *same* de re mode of presentation to *t* that was attached to it by the speaker.[2] If we assume, as many have done, that these modes of presentation can at least in part be given *descriptively* it follows that a referring act can only succeed if speaker and hearer are attaching the same descriptions or predicates to the speaker's referring expression, or more precisely descriptions or predicates with the same content.[3] For instance with the proper name 'Troy' different agents might associate the descriptions 'being a city', 'being located in ancient Greece', 'being the place where the Troyan war took place', 'being described by Homer'. In principle this success condition allows us to account for those empty-cases in which the communicating underlying thoughts do not refer to the objects they allegedly refer to, for instance to what is called by 'Troy'. For agents might attach the same descriptions to a used singular term and thus, according to such a Fregean account of success in referential communication, their communicative efforts succeed although their underlying thoughts do not refer to any objects in the world.

Unfortunately, this Fregean account also faces a central problem, namely it seems far too strong as an account of communicative success in referring acts. For according to it, speaker and hearer always had to entertain the *same* modes of presentation for communication to succeed yet in many cases we seem to be able to achieve success although we think of the alleged referent in quite different ways.

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[2] See for instance Dummett (1981), Evans (1982) and McCulloch (1995) for more general statements of what they have called the *Fregean account* or *theory of communication*.

[3] For the moment the idealizing assumption will be made that different agents always attach the same content to a description or predicate they use, for instance to the predicates 'being male', 'being greek', etc.

For instance you might think of Prince Charles as the prince of Wales who studied at Cambridge and who committed adultery whereas I simply think of him as the son of Queen Elisabeth II. Then according to the Fregean account, referential communication between us involving the name 'Prince Charles' could not be successful, which seems highly counterintuitive.

Having reached this stage of the discussion we seem to be faced with the following *dilemma*: although human subjects are obviously able to understand referential uses of singular terms in communication, it is not clear at all what their understanding might consist in. For, as the discussion has shown, several intuitively plausible and also prominent accounts seem to fail in this regard. They simply do not match certain intuitions we have regarding agents succeeding or failing in referential communication. These intuitions can be summarized as follows:

Frege-Intuition: A hearer can fail to understand the referential use of a singular term by a speaker although they are entertaining thoughts that refer to the same object in the world (Camera Example).

Empty-Case-Intuition: A hearer seems to be able to understand the referential use of a singular term by a speaker although they are entertaining thoughts that refer to no object in the world (Troy Example).

Diversity-Intuition: A hearer seems to be able to understand the referential use of a singular term by a speaker although they are not attaching the same modes of presentation to it (Prince Charles Example).

The question is whether any of the accounts outlined above can somehow be brought into harmony with these intuitions or whether they all fail in this regard and a new account is needed. In later chapters these accounts will be discussed in more detail and possible lines of defense will be considered. The following section will give a more detailed overview on how the question of success in referential communication will be tackled in this work.

2. The Plan

In *chapter I* the attempt will be made of making the phenomenon of referring acts, or of referential communication, more precise. I will start out with the intuitive characterization of referring acts in terms of *referential intentions* to refer an

audience to *particular things one has in mind*. Although this characterization will allow us to draw certain important distinctions, as it stands it is quite imprecise since it rests on the vague notion of "having a thing in mind". The question is whether or not some more explanatory characterization of referential communication can be given. In this regard the role of two important notions will be explored, first that of *reference* and then that of a *referring expression*. For it seems not implausible that referring acts always involve reference to some objects, and further that they are necessarily performed by referring expressions. Yet what the discussion will show is that neither of these assumptions holds true. Agents can perform referring acts without actually referring to some objects, at least given the standard conception of "an object of reference". And secondly, they can perform referring acts without actually using what have commonly been considered as referring expressions. Nevertheless, in the course of arriving at these rather negative results several important distinctions will be introduced which will yield a better understanding of referring acts.

In *chapter 2* it will be argued that referring acts are best characterized in terms of the underlying mental states of the communicating agents. More precisely, it will be argued that there are certain *representations* for particular objects, called *ideas*, which are distinctive of the mental states that underlie referring acts. That is, in performing a referring act a speaker is entertaining a certain idea which he aims to "reproduce" in some way in the hearer, and in understanding the referring act the hearer must come to entertain an idea as well, namely one which *corresponds* in a certain way to the speaker's idea. The main purpose of chapter 2 is to make the nature of these ideas and the proposed characterization of referring acts in terms of them more precise. In this regard I will first point out what I take to be their central synchronic features, in particular explore the widely held conception of ideas as being associated with some sort of *object-files*. Further, their diachronic features will be discussed in some detail. In this context a distinction between two kinds of ideas will be proposed which will throw some new light on Donnellan's attributive/referential distinction.

It seems plausible that in many cases of referential communication the hearer will not come to entertain a new idea, but he will *link* the speaker's utterance to an idea which he already possesses. That is, he will *re-identify* in some way the object the speaker intends to relate him to. In *chapter 3* I want to explore in more detail how such re-identifications work, and in particular discuss their relevance for an analysis of the notion of communicative success in referential communication. Does a hearer, in order to be credited with having understood a speaker's referring act, have to link the speaker's use of a referring expression to some idea which he already possesses? And if such a link has to be established by the hearer, does it

have to be established in a certain way? What I will argue is that with regard to certain kinds of referring acts such link-ups are required. Yet even with regard to them this presents only a necessary condition for communicative success but not a sufficient one. The main requirement for communicative success seems to be that the hearer comes to entertain an idea which *corresponds* in some way with the speaker's underlying idea. In the remaining chapters I will try to spell out in more detail what this correspondence relation might consist in.

Intuitively, it is *sameness in mental reference* which accounts for the relevant correspondence relation.[4] That is, the hearer has to entertain an idea which is of the same object as is the speaker's underlying idea in order to be credited with having understood the speaker's referring act. Before the prospects of this proposed correspondence relation can be discussed it will be necessary to make the conditions for mental reference of ideas or mental states more precise. *Chapter 4* will be concerned with this topic. The central accounts of *mental reference* will be discussed, which are the familiar satisfactional, causal and hybrid accounts. Satisfactional account of mental reference assume that an idea or thought will be of that object in the world which in some way gets distinguished or picked out by it; causal accounts suppose that an idea will be of that object which has played a certain causal role in its production; hybrid accounts simply attempt to combine these elements in some way. It will be argued that pure satisfactional and causal accounts both fail, and that we need a hybrid account of mental reference. I will discuss Evans' hybrid account and Devitt and Sterelny's one - yet it will be argued that they both fail. What will be proposed as an alternative is a hybrid account according to which thinking of an object will be *a matter of degrees*.

On the basis of these considerations regarding the conditions of mental reference I will turn in *chapter 5* to the question of success in referential communication. What will be discussed first is the *simple object-dependent* account according to which a referring act succeeds if and only if speaker and hearer come to entertain ideas or thoughts which refer to the same object in the world. As has been stated above, such an account seems to be invalidated by cases like the Camera-example, where communication seems to fail although the communicating agents' ideas refer to the same object, or the Troy-example, where communication seems to succeed although the communicating agents' ideas refer to no object. It will be explored whether these and similar cases can be captured by employing a more "cosmopolitan" notion of reference, which allows for *reference* to *fictional* or *unreal objects*. For instance, one might think that communicative success in cases like the Troy-example can be accounted for by assuming that there has been shared

[4] The term 'mental reference' has been employed by Fitch (1990). Kvart (1994) uses the term 'thinker reference'.

mental reference to a fictional or unreal object. What I will argue is that the proposed defense fails as a general solution to the problems with a simple object-dependent account.

Then in the second part of *chapter 5* a prominent alternative account of success in referential communication will be discussed, namely the one which can be seen as deriving from Frege's writings and which has been called Fregean account above. According to this account the hearer, in order to be credited with having understood the speaker's referring act, has to entertain the *same mode of presentation* as did the speaker when performing the referring act. In order to give this Fregean view of success in referring acts some credibility it has to be made more precise what modes of presentations are and under what conditions agents can be said to entertain them in referential communication. What I will argue is that given certain widely held assumptions regarding how modes of presentation are to be individuated and ascribed, the Fregean account of success in referring acts turns out to be *too strong*. For in many cases where we intuitively think that the hearer has understood the speaker's referential use of a singular term, no understanding would occur since the associated modes of presentation are simply distinct. At this point one might rightly object that although this undermines the Fregean account it does not undermine its underlying strategy, which is to account for communicative success in terms of agents' modes of presentations. What might be suggested is to relax the Fregean communication-inducing relation that is supposed to hold between the entertained modes of presentation: instead of requiring them to be identical one might argue that they only have to be *sufficiently similar*. The prospects of this strategy of defense will be considered in more detail but it will be argued that it fails as well. The central problem is that such Fregean-style accounts, which appeal to the idea of modes of presentation being similar, run the danger of always being incomplete in the sense of providing only necessary conditions for communicative success in referential communication but not sufficient ones.

This justifies the search for an alternative account of success in referential communication. In *chapter 6* I will turn to a prominent one, namely to Evans' account which he proposed in his 1982 book 'The Varieties of Reference'. The account is a *hybrid account* in the sense that some sort of external success criteria get combined with Fregean ones. That is, for referential communication to succeed speaker and hearer must not only come to entertain thoughts that are externally related in the right way, but in addition they must also employ the right modes of presentation. Evans distinguishes between two kinds of referential communication, namely between cases of *genuine referential communication* and cases of *quasi* or *make-believe referential communication*. By the latter he means cases where agents use singular terms within the pretence of there being certain objects referred to

while knowing that there are none. The two kinds of referential communication are assumed to have different external success conditions. For cases of genuine referential communication to succeed the hearer must come to entertain an idea or thought which refers to the same object as does the speaker's underlying idea or thought. On the other hand, for cases of quasi referential communication to succeed the hearer must come to entertain a thought or idea which has the same *causal origin* or *source* as the speaker's underlying idea or thought. That is, cases of genuine referential communication are still assumed to be object-dependent whereas cases of quasi-referential communication do not have this feature. Although this account fares much better than any simple object-dependent or Fregean account in dealing with the empty cases like the Troy-example, I will argue that it nevertheless fails. The central problem is that there are many empty cases where on one hand communication seems to succeed, yet which on the other hand do not qualify as cases of quasi-referential communication.

In *chapter 7* a new account of success in referential communication will be proposed which will circumvent the problems discussed in previous chapters. The account will resemble, in two important respects, Evans' one: first, it is a *hybrid account* in the sense that a sort of external success criterion gets combined with a Fregean one. Secondly, referential communication will, in certain cases, also be considered as *object-dependent*. In these cases speaker and hearer must entertain thoughts that are of the same object. Yet the new account also departs from Evans' one in crucial ways. To start with, a different Fregean success condition will be put forward which will allow us to capture cases like the above camera example. But more importantly, the distinction between cases of referential communication which are object-dependent and those which are not will be drawn along different lines. Evans distinguishes between *genuine* and *quasi* or *let's pretend* cases of referential communication. The former cases are considered by him to be object-dependent whereas the latter are not. I will argue that Evans is right with regard to the let's pretend cases but not with regard to remaining ones. They do not form a homogeneous group but different kinds can be distinguished. First there are the *perception-based* cases in which one intends to refer an audience to an object one is currently perceiving or one has perceived before. Such cases will be considered as object-dependent. Yet there are also the *communication-based* cases of referential communication, in which one intends to refer the audience to an object one has heard of from others. With regard to them the following disjunctive success condition will be proposed: if speaker and hearer entertain thoughts that are of some objects then they must be of the same object, and if their thoughts are of no objects then they must relate to the same *practice of object-pretence*, i.e. they must have in some sense the same causal-historical source. The central task of chapter 7 is to

make this new account of success in referential communication more precise. In the first part the focus will be on the proposed external success conditions for the different kinds of referential communication. Then in the second part I will turn to the Fregean side of the proposed hybrid account of referential communication, namely to the question regarding how the associated modes of presentation must be related in order for referential communication to succeed. The proposals by Evans (1982) and Recanati (1993) will be discussed, yet it will be argued that they both fail. An alternative Fregean success condition will be proposed which appeals to the idea of modes of presentations being compatible in an *action initiating way*.

Before jumping directly into the discussion of referring acts and of success herein it will be important to lay down in more detail the methodology of the task. Which standards or criteria does an account of success in referential communication have to fulfill in order to be counted as adequate? What will be proposed in the following section are two adequacy criteria on the basis of which existing accounts can be compared and evaluated and the possibility of alternative accounts be explored.

3. The Methodology

Intuitively it is plausible that an account of success in referential communication should accord with our intuitions, namely with those regarding agents succeeding or failing in this form of communication. In fact, in criticizing certain accounts of referential communication above I have already appealed quite extensively to intuitions of this kind. For instance it has been pointed out that an object-dependent account of success in referring acts which makes communicative success dependent on agents' thoughts referring to the same object in the world obviously fails because it clashes with the intuition that there can be communicative success in cases where nothing gets referred to. In fact, this and some other intuitions have been presented as central constraints which any account of success in referential communication has to accord with in some way. Yet one might wonder why these intuitions have been taken so seriously? Why can an account of referential communication be ruled out simply because it conflicts with certain intuitions of ours? In most other sciences for example no one would give up a theory simply because it clashes with certain common sense intuitions. Thus the question is: what is so important about our intuitions in accounting for success in communication?

According to a dominant philosophical tradition which has taken conceptual analysis as the proper business of philosophy these intuitions simply present *the*

data or facts one's analysis has to accord with.[5] For, so the reasoning will go, what one is after here is the elucidation of a certain concept, namely the concept of succeeding in referring acts or of understanding referential uses of singular terms in communication. But the conditions for the correct application of this concept, as in other cases of conceptual analysis, can only be revealed on the basis of our intuitions regarding its applications, i.e. on the basis of our intuitions regarding success and failure in referential communication. And thus these intuitions figure as data.

But one might wonder whether the question regarding the conditions under which referring acts are successful really expresses a quest for conceptual analysis? For is it not the case that what one is after here is the development of a kind of scientific theory of communication? And in this sense the aim is not to reveal our concept of *agents succeeding in referential communication* but to say something about the world, namely about the phenomenon of successful communication which takes place in it as other phenomena like earthquakes, lunar eclipses, the spread of viruses and racial discriminations do. As Devitt (1985, 1994), Dennett (1987) and others have argued, what one is trying to do in philosophy is frequently a form of protoscience, that is the attempt to lay the foundations of a new discipline. In our case this would be the discipline of communication studies. Accordingly our intuitions should have the same status here as they have in the beginning age of any other discipline, which Devitt (1994) describes as follows:

> "They are part of an empirical, fallible, and certainly inadequate set of folk opinions, or more pretentiously, 'folk theory', the linguistic wisdom of the ages." (p. 547)

But still as such our intuitions are, as Devitt (1985) says, the "suitable starting point" in the development of a new discipline. Thus they also present some sort of data. Yet in contrast to the role they play within the conceptual analysis paradigm they are not sacrosanct since they might be invalidated in the light of other considerations.

Although I tend to agree more with Dennett's and Devitt's approach towards the role of intuitions in accounting for the success in referring acts it does not matter very much where one stands on this issue. For also under a more scientifically orientated approach our intuitions regarding agents succeeding in communication will play a central role as data. The only difference to the conceptual analysis paradigm is that they are not sacrosanct. But even this assumption seems to be given up by philosophers doing conceptual analysis, namely when they distinguish

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[5] See Strawson (1992) for a nice statement of this widely accepted methodology, in particular his chapter 1.

between *tutored* and *untutored intuitions* and treat only the former ones as decisive for their analyses. The untutored ones are the raw material one is confronted with when ascertaining agents' intuitive judgements regarding the application of a concept. But in the light of some theoretical guidance agents might revise these judgements and come up with different ones, the tutored ones. Thus I think the following descriptive adequacy criterion will be in agreement with the two general stances regarding the claim "intuitions are data":

Descriptive Adequacy Criterion: An account of communicative success in referring acts has to accord with our intuitions of agents succeeding and failing in this form of communication as long as these intuitions are in agreement with other well-motivated considerations.

This criterion stresses the importance of our intuitions in judging the adequacy of any account of what it is to succeed in referring acts. Yet it also acknowledges that these intuitions might in certain cases be invalidated in the light of some other considerations. It should be noted that these considerations must be well-motivated, i.e. whenever one intends to ignore certain intuitions or types of intuitions motivation has to be given. This is to rule out attempts to ignore certain intuitions just because they harm one's analysis. In case where no further reasons can be given for ignoring them such an analysis is simply inadequate. Further it is important to point out that these "referential intuitions" must not necessarily support a one-folded account of success in referential communication according to which there is only one notion of communicative success. For instance they might point to a two-folded notion or even to a graded notion of communicative success, i.e. there would not be simply communicative success but communicative success in a certain respect or to a certain degree. Later we will see that this indeed presents a plausible view on communication which will allow us to circumvent certain problems.

The question is whether there are any other criteria which have to be respected in accounting for success in referential communication. What comes to mind here is a certain general constraint on any satisfactory analysis or account of some phenomena, namely that it is *explanatory*. What is meant by this is simply that the explanandum, that is the notion or phenomenon under investigation, has to be accounted for by appeal to notions or concepts which are themselves well-understood or at least better understood than the explanandum itself. With regard to the problem of accounting for success in referring acts, the following adequacy criterion results:

The Explanatory Adequacy Criterion: An account of communicative success in referring acts has to be explanatory, that is the notions or concepts appealed to in stating the conditions under which these acts are successful must be well-understood.

On the basis of this criterion Frege's original account of communicative success in referring acts can be ruled out. As has been pointed out before, the distinctive mark of what I have called the Fregean account is that referential communication will be successful if and only if the communicating agents attach the same object-modes of presentation to the referentially used singular term. Clearly, for this account to be in any way explanatory the notions of an object-mode of presentation and that of entertaining them have to be made more precise. It is in this regard that Frege's original account fails. For Frege assumed that there is a distinctive ontological realm of modes of presentation or senses which is independent of us and with which we can interact through the magical mechanism of "grasping", that is entertaining a thought with a certain object-mode of presentation means grasping such a mode of presentation which belongs to this ontological realm.[6] Now the problem is that this account is simply not explanatory, for according to current scientific wisdom we simply do not possess such an ability of "grasping" entities which belong to an extra ontological realm. In fact even Frege seemed to be not quite sure about the credibility of this notion, for instance when he wrote "this process [of grasping thoughts] is perhaps the most mysterious of all".[7]

Yet even if some accounts can be ruled out on the basis of this criterion one might rightly ask whether much use can be made of it in general. For in other cases it might not be so obvious or even not agreed upon whether the notions or concepts appealed to in accounting for communicative success are explanatory or not. What will be assumed as a general constraint in this regard is the following: the explanation must be *naturalistic*. By this I mean that the concepts or notions appealed to must be accepted by our *general scientific world view*. Thus for instance physical bodies, causal relations, certain social facts or representational mental states would be allowed but the non-natural mechanism of grasping Fregean thoughts or thought-contents as some kind of platonic entities would not. One should note that this mild form of naturalism does not involve any commitment to a

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[6] See Schweizer (1990) for an illuminating interpretation of Frege's mysterious mechanism of grasping thought-contents.

[7] It should be noted that by this criticism not any Fregean or Fregean-style account in terms entertaining certain thought contents or modes of presentation gets ruled out. For as long as these entities are assumed to play a classificatory role and in particular an explanation is offered for what it is to entertain such entities everything is fine. Later on such accounts will be considered in more detail.

physicalistic reduction of the notion of communicative success; in fact it seems not implausible that it will resist such a reduction. Clearly, as it stands even this specification of the notion of an account being explanatory is quite vague and imprecise since there is probably no well-defined general scientific world view which can be relied upon. Nevertheless I think it provides a good basis from which a discussion of the question regarding what communicative success in referring acts consists in can proceed.[8]

Thus to summarize this section, for an account of communicative success in referring acts to be adequate it has on one hand to capture our intuitions of agents succeeding or failing in these acts, at least to a certain degree; and secondly be explanatory, namely explanatory in a naturalistic sense. With the summation of these methodological remarks I will in the following chapter turn to the phenomenon of referential communication.

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[8] There has been an influential tradition in philosophy of language which has put even further restrictions on the above explanatory criterion. This is the tradition which arises from the work of the late Wittgenstein and which has been associated with the work of authors like Quine, Davidson and Dummett. The central view adhered to by these latter authors is that communication and language have to be accounted for solely in terms of *publicly accessible data*, namely in terms of "people's overt behaviour under publicly recognizable circumstances" as Quine (1969, p. 26) states it for instance, and not on the basis of some hidden mechanisms like being in certain mental states or being causally related to certain events in the past. Over the last decades this *behaviouristic view* of language and communication has been critized from various angles. One problem with it is that the accounts which adhered to this view have been quite poor and have not come anywhere close to a satisfactory explanation of language and communication. And secondly, the motivation for this behaviouristic view has come more and more under attack. For instance according to Quine (1969) an account of language and of communication has to appeal to agents' overt behaviour since otherwise the *aquisition* of language and the acquisition of the ability to communicate with it cannot be explained. This line of reasoning has been questioned in part by the work of Chomsky and his followers who have argued for the involvement of innate mechanisms in the aquisition of language. In this work I will not assume that the conditions under which referring acts are successful must be such that they are publicly accessible.

1

Characterizing Referential Communication

In verbal communication we constantly perform *referring acts*, that is we use expressions with the intention to refer an audience to certain objects we have in mind. Like other communicative acts referring acts can succeed, and in fact they seem to do so most of the time, but they can also fail. The central question that I will be concerned with in this work concerns the conditions under which referring acts, or cases of *referential communication* as I will call them alternatively, are successful. In order to address this *success question* the phenomenon of referring acts has to be made more precise, because otherwise one runs the danger of talking at cross purposes. The present chapter attempts to provide a more detailed characterization of referring acts. In the first section I will expand further on the intuitive characterization of referring acts in terms of intentions to refer an audience to particular things one has in mind. Although this characterization allows us to draw certain important distinctions, as it stands it is quite imprecise since it rests on the vague notion of *"having a thing in mind"*. The question is whether some more explanatory characterization of referential communication can be given. In this regard the role of two important notions will be explored; first that of *reference* and then that of a *referring expression*. For it seems not implausible to think that referring acts always involve reference to some objects, and further that they are necessarily performed by referring expressions. Yet what the discussion will show is that neither of these assumptions holds true. Agents can perform referring acts without actually referring to some objects, at least given the standard conception of "an object of reference". And secondly, they can perform referring acts without actually using what has commonly been considered as a referring expression. Nevertheless, in the course of arriving at these rather negative results several

important distinctions will be introduced which will yield some better understanding of referring acts. Most importantly these are the distinction between different forms of reference, namely between *mental reference* and reference involving uses of linguistic expressions; further the distinction between *semantic* and *pragmatic* aspects of language and here in particular the distinction between the *meaning* of linguistic expressions, their *conventional referents* and their *intended referents* relative to contexts of their use; further the distinction between reference to *real world entities* and reference to *fictional* or *unreal entities*, and the related distinction between *fictional discourse* and *real world discourse*; and finally the distinction between different kinds of referring expressions and their different functions, in particular the distinction between *referential* and *attributive* uses of definite descriptions. Although these distinctions are mainly introduced with the aim of characterizing the phenomenon of referring acts, their relevance for the above success question will also be discussed.

1. An Intuitive Characterization of Referential Communication

As part of making statements, asking questions or performing other illocutionary acts we frequently use expressions to "refer" or "relate" an audience to particular objects or collections of objects that we have in mind. Consider the following examples in which I am using the underlined expressions in such a way:

(1) Plato wrote many dialogues.
(2) The current president of the US plays the saxophone!

In (1) I am using the proper name 'Plato' with the intention to refer the reader to a particular ancient Greek philosopher I have in mind, and in (2) I use the definite description to refer the reader to Bill Clinton. Searle (1969) has called uses of the underlined expressions as they occur in (1) or (2) *speech acts of referring*. Others like Cohen (1984) referred to them as *identificatory acts*. Throughout this work I will simply call them *referring acts*, or alternatively I will speak of *cases of referential communication*.[1] In this section I will state some features which strike one intuitively as characteristic of such acts.

(a) Referring acts are a special sort of *communicative acts*. By this I mean that they are performed with a distinctive *communicative goal* or *intention*. Intuitively

[1] This latter term is borrowed from Evans (1982). Although I think that his use of the term roughly corresponds to the use I make of the term here, there are some differences which will be pointed out in later chapters.

speaking, the goal or intention which underlies a speaker's referring act is to refer the audience by the use of an expression to a certain object or entity which the speaker has in mind. Following Bach (1987) one can refer to this underlying goal or intention of the speaker as his *referential intention*. Now, speakers can perform referring acts which different kinds of referential intentions. First, one can distinguish between referring acts by which they intend to relate an audience to a *particular*, that is to an entity like you or me which instantiates certain properties or relations, and those acts where they intend to relate them to a *universal*, that is to an entity which can be instantiated by a particular, like the property *being male*. I take it that in performing referring acts speakers usually intend to relate an audience to particulars, yet occasionally they also intend to relate them to a universals, as with the following utterance:

(3) Blue is my favorite color.

On the basis of this underlying referential intention one can distinguish further between what might be called *singular* and *plural referring acts*. In cases of the former kind one intends to relate the audience to a single (particular) object as in (1) and (2) above, whereas in cases of the following kind one intends to relate the audience to a distinguished group of such objects:

(4) The Clintons went skiing over Christmas.

In order to simplify the discussion I will in this work exclusively focus on those referring acts where we intend to refer to particulars, and in particular on those which are singular, that is where we intend to refer an audience to a single particular object. Whenever I speak of referring acts or of cases of referential communication I will always mean acts of this kind.

(b) Referring acts are always part of larger communicative acts. That is, referring acts cannot stand on their own as Searle (1969) and others like Bach (1987) have pointed out, but they will always be part of making a statement, asking a question, etc. For instance, it makes no sense to say 'Paris' or 'you' in isolation without performing some illocutionary acts, for instance making an assertion or asking a question. In some cases those acts might not be explicitly performed, for instance when you ask me 'What is the capital of France?' and I answer 'Paris'. Yet nevertheless, although I am just uttering a proper name, I am not performing simply a referring act but I am making a statement, namely the statement that Paris is the capital of France. Although referring acts are always part of larger illocutionary acts, not all illocutionary acts involve referring acts. In the following

examples I do not use expressions with the intention to refer an audience to certain particular objects I have in mind, but only with the intention of making certain general remarks:

(5) Are some men philosophers?
(6) Many authors write long texts.

Clearly, in making those remarks I might have certain particular objects in mind, for instance the philosopher Michael Dummett when uttering (6). But it is not part of my intention to relate the audience to these objects I have in mind in uttering (5) or (6). What this shows is that simply having an object in mind when using certain expressions to communicate something to an audience is not enough in order to be credited with performing a referring act. One must use the expressions with the specific intention to relate the audience to the object one has in mind.

(c) Referring acts qua communicative acts can *succeed* or *fail*. By this I mean that an agent can *understand* another agent's use of an expression in a referring act, but also *misunderstand* it or *not understand* it at all. Consider the following little dialogues between two persons Mary and John which should make those differences plausible:

(7) Mary: Did you talk to Frank at the Party?
John: No I didn't.
Mary: But I saw you talking to him.
John: Ah, you mean Frank Hill, yes I talked to him. I first thought you meant Frank Smith.

In this dialogue John first misunderstands Mary but later resolves this misunderstanding, thus later referential communication succeeds. Consider now the case where Mary simply does not understand John:

(8) John (after the party on their way home): This guy with the red shirt and the purple glasses was really amazing.
Mary: Which person do you mean?
John: That friend of Frank who plays in his jazz band.
Mary: I really don't know who you are talking about.

In contrast to the above example Mary here simply has no clue whom John is talking about, she does not understand fully his referring act involving the expression 'This guy with the red shirt and the purple glasses'. Characteristic of

cases of not understanding a referring act is that the hearer simply has no clue regarding the object the speaker had in mind when performing the referring act. That is different in cases of misunderstanding where one thinks to have identified the object the speaker had in mind, but one has identified the wrong one.

The central question to be addressed in this work concerns the conditions under which referring acts succeed or fail. That is, what must be the case for an audience be credited with having fully understood a referential act performed by a speaker? The above characterization of referring acts in terms of the *audience-directed intention* to refer the hearer to a particular thing one has in mind suggests the following answer: a referring act by a speaker *S* involving an expression *t* is successful with regard to a hearer *H* if and only if *H* identifies the object *S* wanted him to come to have in mind when using *t*, namely by *coming to have the same object in mind*. Given this answer one can capture the distinction between misunderstanding and not understanding as follows: in cases of misunderstanding the audience comes to have the wrong object in mind, that is not the object that the speaker intended them to come to have in mind. And in cases of not understanding the audience does not come to have any object in mind. For instance in dialogue (7) above John first misunderstand Mary's use of 'Frank' because he comes to have the wrong object in mind, namely Frank Smith instead of Frank Hill. In dialogue (8) on the other hand Mary does not understand John's uses of 'This guy with the red shirt and the purple glasses' because she does not come to have any particular object in mind.

Unfortunately as it stands this answer to the success question seems not quite right. For the hearer coming to have the same object in mind as the one the speaker intended him to refer to provides at best a necessary condition but not a sufficient one for being credited with having understood the speaker's referring act. The following example shows this quite nicely: imagine that you are attending a talk by someone, but instead of listening to what he is saying your thoughts are drifting away. Then it might happen that at some point when the speaker is performing a certain referring act by uttering an expression *t* you come to have the same object in mind that the speaker intended to refer his audience to. For instance he wants to say something about Plato by using the name 'Plato' and at the same time you happen to think of Plato, yet without listening to what the speaker is saying. In this case I think it would be wrong to say that you understand the speaker's referring act. For your thinking of Plato is not linked in the required way to the speaker's referring act. The point is, that in order to be credited with understanding the speaker's referring act you must come to think of Plato *as the object the speaker intended to refer you to* by the use of the name 'Plato'. One could also state this by saying that for a hearer to have successfully understood a speaker's referring act involving an

expression *t* he must not only come to have the same object in mind as the one the speaker intended to refer him to, but in addition he must think of the object he comes to have in mind as the one the speaker intended to refer him to by the use of *t*. That is, the hearer must consider or treat it as the *interpretation* of the speaker's use of *t*.

Let me summarize the main points stated so far: first, referring acts have been characterized as those communicative acts in which agents use expressions with the intention to refer an audience to particular objects they have in mind. The underlying audience-directed intention which is characteristic of referring acts has been called referential intention. Secondly, this intuitive characterization of referring acts has given rise to the following intuitive answer to the success question, which concerns the conditions under which a hearer can be credited with having understood a referring act:

Intuitive Answer to the Success Question: A hearer has fully understood a referring act performed by some speaker involving an expression *t* if and only if (a) the hearer comes to have the object in mind that the speaker intended to refer him to by using *t*, and (b) the hearer thinks of the object he comes to have in mind as the one the speaker intended to refer him to by the use of *t*. In short: the hearer has understood the speaker's referring act if and only if he comes to recognize the speaker's referential intention.

Despite their intuitive plausibility the proposed characterization of referring acts and the account of communicative success it suggests face some serious problems. First of all, as they stand they are not explanatory since they rest on the vague and highly unclear notion of "*having a particular thing in mind*". The question is: under which conditions does one have a particular object in mind and under what conditions does one not? And in particular, under which conditions do different agents have the same particular object in mind? Without having answers to these questions the above characterization of referring acts in terms of referential intentions is not very illuminating. The same can be said with regard to the above account of communicative success which appeals to the idea that hearer and speaker must come to have the same object in mind for a referring act to be successful. Further, it should be noted that other problems arise even if sense can be made of this vague notion of "having a particular thing in mind". For instance it seems plausible that for performing a referring act one must not only use an expression with the intention to refer an audience to a particular thing one has in mind as assumed above, but in addition must one make this intention manifest in a conventionally suitable way, by using certain types of expressions, namely what

have been called *referring expressions*. Expressions like proper names, indexicals or pronouns are commonly considered to belong to this class. Finally with regard to the above answer to the success question it might be asked whether or not the cognitive or mental process, on the basis of which the hearer arrives at the interpretation of the speaker's referring act, must also to be taken into account. For instance it might be suggested that for a hearer to be credited with understanding the speaker's referring act, the interpretation he comes up with must be the result of a *reliable mental process*. Those latter aspects have not been taken into account so far and this and the following two chapters will explore whether there is need to do so. Yet first the important notion of *reference* will be introduced and its role in characterizing referring acts and the notion of "having a thing in mind" will be discussed in more detail.

2. Different Forms of Reference to Particulars

One might think that what is characteristic of referring acts simply is *reference to certain particular objects*. That is, whenever an agent performs a communicative act of this sort there is an object referred to by the agent. This view seems to be suggested by the examples discussed so far. For instance in example (1) where I used the term 'Plato' to relate you, the reader, to a certain philosopher I had in mind, there was an object I referred to, namely to the philosopher Plato. Likewise, in the case where I used the term 'The Clintons' to relate you to a certain collection of objects I had in mind, there was indeed such a collection of objects that I referred to, namely the Clinton family. This view that reference to some object(s) is at least in part constitutive of the class of communicative acts discussed here underlies the work of authors like Bach (1987), Searle (1969), or Strawson (1964). Yet despite its intuitive plausibility I think that this view is wrong, at least with regard to the phenomenon I aim to discuss in this work. In order to show this, it will be necessary first to make the notion of reference more precise. This will be done in this section. Then in the next section I will discuss the claim that all referring acts involve reference to some objects.

Traditionally reference has been conceived of as a *relation* which holds between certain kinds of representations and certain entities in the world. Three questions arise with regard to this relational conception of reference:

(A) What are the representations which can refer to some objects or entities in the world?

(B) What are the entities in the world which can be referred to by those representations?

(C) What determines that a particular representation refers to some entity in the world?

In the history of philosophy and semantics various answers have been proposed with regard to those questions. In this section I will mainly indicate the positions that have been put forward with regard to the first question that concerns the "bearers of reference". This will lead to a classification of the different forms of reference that have been acknowledged in the literature. Then in the next section I will argue for the claim that reference to objects is not constitutive of referring acts, at least not under the most common conception of "an object of reference". In showing this the second question regarding what kinds of "referents" or "objects of reference" there are will be discussed in more detail. Finally, the third question which concerns the "conditions of reference" will be taken up in a later chapter, although certain intuitions regarding how it should be answered will already be appealed to in this chapter.

To start with, it is commonly said that our *mental* or *cognitive states* refer to particular objects in the world, or at least parts or constituents of such states. For instance last night I entertained the thought that Franz Schubert should have lived longer, or a minute ago I thought that the monitor in front of me is too bright. Both thoughts or thought episodes of mine referred to objects in the world, or at least, they involved some ideas, notions or object-representations which referred to objects in the world. The first thought referred to the composer Franz Schubert and the second one to the computer monitor which is currently standing on my table. Likewise, other mental states one comes to be in can refer to entities in the world, for instance one's wishes, desires, perceptions, intentions etc. Of our cognitive or mental states which refer to some objects in the world it is also said that they are *of* or *about* those objects. For instance my Franz-Schubert thought I had last night was of or about the composer Schubert. And my computer monitor thought was of or about a certain computer monitor. Further, this form of reference which conceives of agent's mental states (or part of those states) as the bearers of reference has been called *mental reference* (Fitch 1990) or *thinker reference* (Kvart 1994). Clearly, in order to make this form of reference more precise one needs to know what our mental or cognitive states are which refer to objects in the world. For instance it seems plausible to think that they have certain constituents which refer to objects in the world. My belief that Clinton will beat Dole in the next American election seems to have two constituents which refer to different objects,

one which maybe refers to the current president of the US, namely Bill Clinton, and an other which refers to his Republican challenger Bob Dole. In the next chapter I will present an account of mental states which makes this idea of mental states having constituents that refer to objects in the world more precise. Yet let me first point out what other forms of reference there are which might be relevant in characterizing referring acts.

Ordinary usage suggests that also *linguistic expressions* can refer to objects in the world. For instance it is said that the proper name 'Franz Schubert' refers to the composer Franz Schubert or the definite description 'the highest mountain on earth' to the Mount Everest. This form of reference has also been called *linguistic reference* (Bach 1987). Both Frege and Russell have assumed in their writings that linguistic expressions are the primary bearers of reference. This view has been challenged by Strawson (1950) and other authors who have argued that in general only particular uses of linguistic expressions refer to objects, but not the expressions themselves. For instance it seems wrong to say that the pronoun 'he' or the demonstrative term 'this man' refer to some object(s). Those expressions can be used by speakers in certain contexts to refer to objects, but they themselves, qua *linguistic types*, do not refer to any objects. It should be noted that this it not only true with regard to these highly context-dependent expressions but also with regard to most proper names or definite descriptions. For instance it would be wrong to say that the proper name 'John Smith' qua linguistic type refers to a certain individual in the world. Only uses of that name in certain contexts refer to certain individuals. For instance you might use the name to refer to a certain John Smith you know, whereas I use the name to refer to a different John Smith. Thus reference is better conceived to be as a relation which holds between uses of linguistic expressions by speakers and objects in the world than as a relation between the expressions themselves and the objects. There might be rare cases of linguistic reference where it makes sense to say of certain linguistic expressions that they refer, for instance of certain uniquely satisfying definite descriptions like 'the highest mountain on earth'. Yet in general it is more plausible to think that *speaker reference*, which conceives of uses of expressions by speakers as the bearers of reference, is the more fundamental notion than linguistic reference.

One should take note in this context of the important distinction between *semantic* and *pragmatic* aspects of language. According to a widely accepted proposal by Bach (1987) the domain of semantics should be concerned solely with the *facts about language*, that is with the properties and features of expressions qua *linguistic types* which are independent of contexts of use. As Bach states it:

> "... the semantics of an expression gives the information that a competent speaker can glean from it independently of any context of utterance". (p. 5)

On the other hand pragmatics is conceived of as being concerned with the *facts about language use*, that is with the properties and features of expressions qua *tokens* which are dependent on contexts of use. Given this distinction reference involving linguistic expressions turns out not as a semantic relation, that is a relation that holds between linguistic types and objects in the world, but as a pragmatic relation, that is a relation that holds between tokens of linguistic types in contexts of use and objects in the world. For the referent is in general not something which one can glean from an expression independently of its context of use, as the above examples have shown. What can be gleaned from an expression independently of its context of use is its *meaning*, the study of which falls into the province of semantics proper. For instance expressions like 'he' or 'this man' have a meaning qua linguistic type which one will know when one knows the English language. Now the task of the semanticist according to Bach is to make more precise what the meanings of the various kinds of expressions are, whereas the pragmaticist has to study the context- or use-dependent features of language, among which speaker reference is an important one. Throughout this work I will adhere to a conception of the semantics-pragmatics distinction along these lines, according to which reference involving linguistic expressions turns out to be a pragmatic relation.

With regard to this pragmatic notion of linguistic reference a further important distinction must be drawn. This is the distinction between what the speaker *intentionally refers to* by a use of an expression and what he *conventionally refers to*. In order to illustrate this distinction consider the following example. You are at a party which you have organized and you are quite busy making sure that everybody is happy. At one point you want your friend Peter to pass on some piece of cake to your friend Mary. Since you know that Peter does not know Mary you simply say to him:

(9) Can you please give the cake to the woman holding that fancy beer glass.

You choose the underlined definite description to refer to Mary because you have seen her holding this glass just a minute ago and you know that Peter knows the fancy beer glass as well. That is, under normal circumstances he should be able to pick out Mary on the basis of this description. But imagine that by now Mary has passed on this glass already to another woman, namely to Claire. Then your use of the definite description would not conventionally refer anymore to Mary, because

she does not satisfy the uttered definite description relative to the context in which it is uttered. Mary is the one you intentionally refer to by using this expression, she is the *intended referent* of your use because your underlying referential intention is directed at her. Yet it is Claire who you refer to by conventional means in this context. She is the *conventional referent* as it might be called since she satisfies the uttered definite description relative to the context in which it is uttered. Examples similar to this one are conceivable. For instance you might point behind you saying 'This is the painting I most like' where your intended referent is Botticelli's 'Birth of Venus', in the sense that it is this painting which your underlying intention or thought refers to. Yet by mistake you point at some painting by Fra Angelico which then will be the conventional referent of your use, in the sense that it is the one which satisfies the conventional meaning of the uttered expression relative to the context in which it is uttered. Or more precisely, it uniquely satisfies what has been called by Evans (1982) and others the *referential feature* of the used expression. Here are some example expressions with the referential features they are assumed to have by conventional means:

'I'	*being the addresser*;
'he'	*being a salient male person;*
'the F'	*being an (the unique) object that is F;*
'this F'	*being a salient object that is F;*
'NN'	*being the object named or commonly called 'NN'.*

What has been proposed is that an object *o* is the conventional referent of an expression *t* relative to a context *c*, if and only if *o* uniquely satisfies the referential feature of *t* relative to *c*. Given this account of conventional reference, you would by the use of the definite description 'the woman holding that fancy beer glass' in the above example not refer to Mary but to Claire. For Claire uniquely satisfies the referential feature of that expression relative to the context of use, since Claire is holding the fancy beer glass and not Mary.

It should be noted that this simple account of how the conventional referent of a used expression gets determined has its problems. For instance it does not work for uses of proper names since in most cases there are no objects present relative to their contexts of use which uniquely fulfill their respective referential features. Imagine I say 'Plato wrote many dialogues', what will be the conventional referent of my use of the proper name 'Plato'? According to the above proposal it should be that object which uniquely satisfies the name's referential feature relative to its context of use. But who or which is that object? Normally by a context of use we mean the situation which includes the speaker, the audience and the surrounding

(perceptual) environment. But Plato, the greek philosopher to whom I mean to refer with the above utterance, is clearly not part of this situation. Thus according to the above proposal he could not figure as the conventional referent of my use of the name. But imagine now there was someone present in the audience who is in fact called 'Plato'. Would he be the conventional referent of my use of the name 'Plato'? According to the above proposal he should be the conventional referent, but that is clearly an awkward result. Thus it seems that we need a different account of how the conventional referents of proper names get fixed. In this work I will not further address this issue regarding how their conventional referents gets fixed, because it is mainly the intended referent which is relevant for communication purposes as will be shown below.

Usually the intended referent will be identical with the conventional referent, yet as just shown there are also cases where they differ. Further, there are cases where one of the two kinds of referents is missing, in particular where there is no conventional referent. Imagine that you are pointing behind you saying 'This is the painting I most like' and the intended referent is Boticelli's 'Birth of Venus', yet there is no painting pointed at by you. For instance while talking to someone you might have walked into a room where there are no paintings at all, but you might think that you are still in 'The Boticelli room' and accordingly perform the mistaken demonstrative act. In this case there would be no conventional referent since there is no painting pointed at by you in the context of utterance. Thus there can be intended speaker reference without conventional speaker reference. Now consider the opposite case. Imagine that there is a parrot who utters the following words 'You are stupid' while you are standing in front of him. Given the assumption that parrots do not think of particular objects when they utter expressions like 'You', one can treat this as a case where there is a conventional referent but no intended referent. Yet it should be noted that it is much harder to come up with cases where a competent speaker, which a parrot surely is not, uses an expression and there is no intended referent but only a conventional referent. What one might come up with is the following case: imagine a blind person who, after being asked whether she wants to buy one of the nice postcards which are presented to her, points randomly in one direction and says 'Give me this card' without actually seeing any of the cards. Now it might be that by pointing in one direction she actually manages to refer to a certain card by her use of the demonstrative term 'this card' and her accompanying pointing gesture, in the sense of there being a conventional referent. On the other hand it seems plausible that when using that demonstrative term there is no particular card she wishes to refer to, which means that there would be no intended referent. Nevertheless it is not really clear whether this latter claim is true. For is it not her wish to refer to the object pointed at when using the demonstrative

term? Thus it might seem that the conventional referent also qualifies here as the intended referent. What stance one takes on this case depends very much on how in detail one conceives of intended reference. The central question is: what kind of mental state must one be in in order to be credited with intentionally referring to some object? In a later chapter this question will be taken up in more detail.

Kripke (1979) has conceived of the distinction between intended reference and conventional reference as a special case of Grice's familiar distinction between *what one said* by uttering certain words in a given context and *what one meant* by uttering them in that context.[2] Now what is said by an utterance of certain words is according to Grice essentially determined by their conventional meanings, but it may also go beyond them by being dependent on contextual factors. For instance in uttering 'I am tired' I say that a certain individual, namely Matthias Paul, is tired. If someone else uttered this sentence then something different would be said, although the meaning of the sentence remains the same. On the other hand, what is meant by uttering certain words should be seen as being essentially determined by the particular thought or intention which underlies the speaker's utterance. In the case where I intend to convey with uttering 'I am tired' that I am tired, what is meant is the same as what is said. But in some cases it might also be different. For instance I might mean with it that I want to stop talking to you on the phone. Or in the case where I am not a native English speaker and where I have just learned the English pronouns, I might mean with uttering this sentence that some other person is tired. This would for instance be the case when I mistook the pronoun 'I' for the pronoun 'he'. Note that what is said as well as what is meant by uttering certain words will in general not be semantic information, for it is not entirely being encoded in the linguistic type of the used words. Yet what is said is closely related to the semantic information since it is determined by the meaning of the used expression plus some contextual factors. On the other hand, what is meant is determined by the speaker's underlying thought plus possibly some contextual factors. Given this distinction conventional reference can be considered as a special case of what is said and intended reference as a special case of what is meant. For in cases of conventional reference it is assumed to be the meaning of the used expression plus some contextual factors which determine its reference relative to its context of use, whereas in the case of intended reference it is assumed to be the speaker's underlying mental state which determines the reference of the used

[2] It should be noted that Kripke refers to these kinds of reference as *speaker reference* and *semantic reference* respectively. Given the use I have made above of the term 'speaker reference' above this terminology is quite misleading. For in both cases do uses of expressions by speakers figure as the bearers of reference, thus they both would classify as cases of speaker reference. In order to avoid terminological confusion I will stick to the terminology chosen above and continue to use the terms 'intended reference' and 'conventional reference'.

expression.

It is an interesting question which of those two kinds of reference - intended or conventional referent - is more relevant in accounting for success in referring acts. Given that reference to objects is relevant at all in accounting for success in referring acts - as we will see later on there are good reason to think that it is not - then intended reference should be most be relevant. In order to see this consider again the above examples where the intended referents were different from the conventional ones, for instance the example where a speaker pointed at a painting by Fra Angelico while saying 'This painting I like most', but where he meant a different painting than the one pointed at, namely one by Boticelli. In this case I think it would be wrong to say that a hearer has fully understood the speaker's use of 'this painting', if he merely identified the painting pointed at, that is the conventional referent of the used term 'this painting'. In fact there is an important sense in which one would say that he had misunderstood the speaker. For the hearer failed to grasp the object which the speaker wanted to say something about. What underlies this intuition is the assumption that what one means by the words one uses is most relevant in accounting for success in communication and not so much what one in fact says by them. For communication is first of all a means of "conveying" our thoughts or mental states to, or "reproducing" them in, other agents. We use certain expressions which we think are suitable in this regard, but in some cases we choose the wrong expressions which do not express what we intend to convey by them, either by mistake or also intentionally. In such cases it might happen quite easily that our audiences only come to grasp what we say but not what we mean, yet then it can surely not be claimed that communication has *fully* succeeded. Because for communication to succeed the audience must first of all grasp what we mean by the words we use. Grasping what we say will usually amount to grasping what we mean, but in those case where it does not there will not be full communicative success either. It should be noted that these latter remarks are independent of the claim that what is meant by the speaker in uttering some expressions in a referring act is given by some form of reference to objects. For these remarks merely point out that the standard of success in communication should first of all be seen as being set by the features of the speakers' underlying mental states in communication and not so much by the features of the expressions used by them. This will hold true even if the relevant feature of the underlying mental states in referring acts is not reference to an object.

In discussing the question of success in referential communication I have already moved ahead of the topic of this chapter, which is to characterize this form of communication in more detail. Yet as stated before, I think we cannot discuss the success question adequately without first making more precise what referential

communication or referring acts consist in. In this regard I will consider in the following section the intuitively plausible claim that such acts can be characterized in terms of reference to objects.

3. Referential Communication and Reference to Particulars

Referring acts have been characterized intuitively as those communicative acts in which the speaker uses some expression(s) with the intention to refer an audience to a particular object he has in mind. In the light of the example referring acts discussed before the following claim seems plausible: whenever a speaker performs such a communicative act there is a particular object referred to by the speaker's use of the respective expression(s), i.e. there is speaker reference. Given the distinctions drawn in the previous section this could mean two things: (a) the speaker's use of the expression in the referring act has an intended referent or (b) it has a conventional referent. That is, there is a particular object which the speaker's underlying mental state refers to, or there is a particular object which gets referred to by conventional means as outlined above.[3] What I will show in this section is that irrespective of which of these options one adheres to, the claim that a referring act always involves reference to a particular object is wrong, at least under the most common conception of an 'object of reference'. In order to show this let me first point out this conception of particulars.

The most common conception of an object of reference is that of a concrete particular object which exists or has existed *in space and time*, or possibly only in time. Paradigmatic examples are first of all *material objects* in the broad sense such as living things, rocks, cars, tables, cities, islands, countries or stars. But in addition also *events* are conceived of as concrete particulars such as Stauffenberg's assassination attempt on Hitler on July the 20th in 1944, or Miles Davis' last concert. In the following I will call this conception of particular objects the *standard conception*. Now given this standard conception it is simply wrong to say that all referring acts involve speaker reference to some particulars. For there are many example cases of referring acts where speakers use expressions with the intention to relate an audience to some particular object they have in mind yet where they do not actually refer to any concrete physical object or event. Consider in this regard my uses of the underlined proper names in the following examples:

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[3] It seems plausible is that in claiming there is an object referred to in referring acts we first of all mean that there is an intended referent. For what one means by the words one uses seems more relevant to communication than what one says by them, as has been argued above.

(11) Sherlock Holmes solves all murder cases.
(12) James Bond is always well dressed.

In using these two proper names I intend to relate you to some particular objects I have in mind. Yet there are no concrete objects existing in space and time that I actually refer to, because there simply has never been any Sherlock Holmes nor any James Bond. Thus under the standard conception of particulars the claim that referring acts always involve reference to particular objects turns out to be wrong.

One might object to this line of reasoning by saying that examples (11) and (12) are special or exceptional in the following sense: they are not examples of "*discourse about actuality*" in which agents intend to refer to real existing particulars, but examples of "*discourse about fiction*" as it has been called by Donnellan (1974). Now it is widely accepted that these latter kinds of discourse deserve special treatment, and thus the above examples cannot be used as counterexamples to the claim that referring acts always involve reference to concrete particulars. For this was intended first of all as a claim about ordinary cases of referring acts, i.e. those acts which occur in discourse about actuality. The first thing to be said against this objection is that uses of proper names like 'Sherlock Holmes' in the above examples also strike me as quite ordinary cases of referring acts; nowhere has it been said so far that the claim 'all referring acts involve reference' does not apply to acts of this kind. But secondly and more importantly, even if this claim is understood as concerning only those referring acts that occur in discourse about actuality, it still seems wrong. For there are also examples of referring acts which occur in this kind of discourse, yet where no particular objects are referred to. Before I turn to relevant examples, let me first make this distinction between "discourse about actuality" and "discourse about fiction" more precise.

The distinction between "discourse about actuality" and "discourse about fiction" has been drawn by various authors, for instance by Donnellan (1974), Evans (1982), Parsons (1980) or Searle (1969). According to their view it is first of all a matter of the *underlying intent* of the referring act which distinguishes these two kinds of discourse. In discourse about actuality it is the speaker's intention to refer to a real particular object existing in space and time, whereas in discourse about fiction the speaker intends to refer to a "fictional" or "pretended" character. In accounting for this latter kind of discourse some of the above authors have assumed that there *are* actually some particular objects referred to, namely according to Searle particulars which only *exist in fiction*, or according to Parsons particulars which are *non-existing*. Others like Donnellan or Evans aim at different accounts which do not lead to an increase in the ontology of particulars. Yet irrespective of which line these authors take on discourse about fiction, with regard to discourse

about reality they all seem to assume that only particular objects which exist or have existed in space and time (or only in time) can be referred to. For instance Searle (1969) who allows for reference to Sherlock Holmes in discourse about fiction writes with regard to discourse about reality :

> "In normal real world talk I cannot refer to Sherlock Holmes because there never was such a person." (p. 78)

What underlies this claim is the implicit assumption that only objects which exist in space and time can be referred to in real world talk. I will call this the *existence assumption.*

Given this assumption let us now turn to the question whether the claim 'all referring acts involve reference to particulars' can be saved if we understand it as concerning only those referring acts which occur in real world talk. The claim then takes the following form: whenever a speaker *S* uses an expression *t* to relate an audience to a particular object which *S* has in mind and which is assumed by *S* to exist or to have existed, then there is actually a real particular which *S* refers to by *t*. It should be clear that examples like (11) or (12) above no longer undermine this claim because the respective referring acts which involve uses of the proper names 'Sherlock Holmes' and 'James Bond' occur in discourse about fiction and not in discourse about reality. The question is: are there referring acts occuring in this latter kind of discourse which undermine the claim? I think it is quite easy to show that there are such acts. In fact Searle in the quote above already points at such examples. For instance imagine a person, for instance a child, who falsely believes in the existence of Sherlock Holmes and who utters the following sentence:

(13) Sherlock Holmes is coming to dinner tonight at my house.

In using the name 'Sherlock Holmes' the child would perform a referring act, and in particular one which occurs in real world talk, because it is the child's intention to refer the hearer to what he takes to be a real object. Yet there would be no real particular referred to.

As has been noted by Donnellan (1974) such cases also occur in ordinary adult talk. He discusses the case of *The Horn Papers*, "that purported to contain the diary of one Jacob Horn and that would, if genuine, have shed light on the colonial history of Washington County, Pennsylvania" (p. 219). Allegedly, many people believed *The Horn Papers* to be genuine, but, on the evidence, it seems likely that they are not and that Jacob Horn did not exist. Yet, as Donnellan remarks, there must have been many believers, who made statements using the name 'Jacob Horn'

with the intention to refer to a historical figure, as with the following sentence:

(14) Jacob Horn was born in Pennsylvania.

These uses of the name 'Jacob Horn' clearly classify as referring acts which occur in discourse about reality, yet they are *empty* in the sense that no real object gets referred to. Thus they invalidate the claim that all referring act which occur in real world talk involve reference to some real object. Likewise, consider an utterance of the following sentence by someone in the desert who is seeing a Fata Mogana of a lake without there being any lake:

(15) This lake will save our lives.

Again this is an example where a person intends to refer his audience by some expression to an existing object and thus this referring act occurs in real world talk. Yet there would be no real lake referred to by the use of this term. To conclude, there are many examples of referring acts which occur in real world talk but where no particular objects are referred to. Hence referring acts cannot be characterized in terms of reference to such objects.

As it stands this argument rests on the above existence assumption, that is on the assumption that only concrete objects can be referred to in real world talk. For what really has been shown so far is that if this assumption is true then the claim that all referring acts involve reference to some objects is false. Now instead of giving up on this latter claim as suggested above, one might also opt for giving up on the existence assumption. Then the case would have to be made that also in real world talk where we intend to refer to concrete objects, other objects can be referred to. This view might be called *strong Meinongianism* which contrasts with the *weak Meinongianism* adhered to by Parsons (1980). According to the latter view there are assumed to be other particulars than the concrete ones but they cannot be referred to in real world talk, whereas according to the former view they could also be referred to in real world talk. At this point I will not discuss further the prospect of such a strong Meinongianism originally adhered to by the Austrian philosopher Alexius Meinong (1907). For like many other authors I find it simply outrageous to assume that in those cases where agents intend to refer to some robust real object, yet where there is no such object referred to, they still can be said to refer to some unreal object. What I am interested in here is first of all a plausible and intuitively acceptable characterization of referring acts. And in this regard I think it is fair to say that strong Meinongianism simply does not yield such a characterization. The different forms of Meinongianism will be discussed later on when I turn to the

question of success in referring acts.

To sum up this discussion: referring acts cannot be defined in terms of reference to particular objects. The reason is simply that such acts can be performed without referring to an object. This holds not only for those acts which occur in discourse about fiction, but also for referring acts that occur in discourse about actuality, as it has been called. In the light of this rather negative result one might wonder whether it is still appropriate to call such communicative acts referring acts and the resulting cases of communication referential communication; since these terms carry the presupposition that there is some object referred to. What seems more plausible is to speak of *purportedly referring acts* or of *referentially intended communication*. For characteristic of such acts and the resulting cases of communication is not reference to an object but the referential intention of the speaker to refer to an object. Nevertheless, in order to simplify the discussion I will continue to speak of referring acts and of referential communication, yet these terms should be understood in the sense introduced here.

Further note, even if the notion of reference to particulars cannot be used in order to illuminate the notion of a referring act, it might still play an important role in accounting for success in such acts. For the issues of what referring acts are and under what conditions hearers can be credited with having understood them are independent from each other. In fact it seems not implausible to think that for those referring acts which occur in real world talk to succeed the hearer must identify the speaker's intended referent. And if there is none then the act can simply not be considered as successful, at least not in a complete sense. In a later chapter such a proposal will be discussed in more detail. Yet before we can move to this discussion it will be important to make the phenomenon of referring acts itself more precise. In the next section I will explore the possibility of characterizing them further in terms of certain linguistic expressions used in performing such acts.

4. Referential Communication and Referring Expressions

Referring acts are commonly performed by certain types of expressions which have been called *referring expressions*. This class of expressions has been taken to include proper names ('Mary', 'Rome', ...), pronouns ('I', 'you', 'he', ...), and demonstrative terms ('this', 'this man', 'these cookies', ...), but also certain complex noun phrases like definite descriptions ('the president of the US', ...) or indefinite descriptions ('a man', ...). In the following, several important distinctions with regard to the class of referring expressions will be pointed out. These distinctions will not only lead to a classification of the different kinds of

referring expressions, but in addition they will provide a better understanding of referring acts. So far such acts have been characterized only quite generally, namely as those communicative acts in which agents use an expression to relate an audience to a certain thing they have in mind. The question is whether something more specific can be said about such acts. I believe that studying the different kinds of referring expressions, in particular their various functions, will reveal more details about the phenomenon of referring acts.

(a) A first distinction can be drawn between *singular* and *plural referring expressions*. Examples of singular referring expressions are proper names like 'John' and 'Mary' or pronouns like 'I' and 'you', whereas pronouns like 'they' and 'we' or expressions like 'The Clintons' are examples of plural referring expressions. Clearly, there are syntactic differences between those expressions, yet whether an expression belongs to one of those classes is mainly a question of their function. Singular referring expressions serve to refer an audience to a particular object one has in mind, that is they get used to perform *singular referring acts*. On the other hand plural referring expressions serve to refer an audience to a certain collection of objects one has in mind, that is they get used in *plural referring acts*. As has been said before, in this work the focus will be exclusively on singular referring acts and accordingly only on singular referring expressions. These expression will also be referred to as *singular terms*.

(b) One can further distinguish between *complex* and *simple referring expressions*. By complex referring expressions I mean those which themselves have referring expressions as constituents. Consider for instance the underlined expressions in the following examples which have both referring expressions as constituent, namely those set in bold type:

(16) The man standing next to **John** is my professor.
(17) This woman holding **the fancy beer glass** loves jazz music.

In using a complex referring expression the speaker aims to refer an audience to some object he has in mind through referring them first to some other object. For instance in (16) the speaker intends to refer the audience to a certain man by referring them first to John through which the man, who the speaker has in mind, can be identified. The kind of referring acts which are commonly performed by the uses of such complex referring expressions will be called *complex referring acts*. Complex referring expressions contrast with simple referring expressions which themselves do not have referring expressions as constituents. Examples for simple referring expressions are proper names like 'Mary' and 'John', pronouns like 'he' and 'she' or simple demonstrative terms like 'this man' and 'that woman'. Those

expressions serve to relate an audience somehow "directly" to the object the speaker has in mind, without the help of a constituent referring act. Referring acts of this kind will be called *simple referring acts*.

(c) Another distinction which has been drawn is that between *indefinite* and *definite referring expressions*; see Searle (1969) for drawing this distinction. Indefinite descriptions like 'a man' or 'a woman' have been considered as paradigmatic examples of indefinite referring expressions, whereas most other referring expressions like proper names, pronouns, demonstratives terms and definite descriptions have been classified as definite referring expressions. The question is, what functional difference underlies this classification. What distinguishes the referring acts performed by definite referring expressions from those performed by indefinite referring expression? Indeed, do we perform referring acts at all when we use indefinite referring expressions? That is, do we always intend to relate an audience to a particular object which we have in mind when we use expressions like 'a man' or 'a woman'? Some, like Lyons (1977) for instance, think that we don't, and in the light of examples like the following ones this seems plausible:

(18) A woman lives statistically 5 years longer than a man.
(19) A new baby is born each 5 seconds.

With the underlined indefinite descriptions in those examples one indeed does not intend to refer an audience to a particular object one has in mind. Here those expressions simply serve to make some general remarks. Yet there are other uses of indefinite descriptions where it seems more plausible to say that one performs a referring act. Consider for instance the following one:

(20) I met a man yesterday who has been to Tonga. We can contact him under this number to get information on the island before we go there.

With the use of 'a man' in this example I intend to relate my friend to a certain man I have met, thus one might say here that one is performing a referring act. Yet this referring act clearly differs in some way from the ones performed by uses of definite referring expressions, for instance by the use of the proper name 'Tonga' or the demonstrative term 'this number' in (20). What does this difference consist in? The following proposal seems plausible in this regard: uses of indefinite referring expressions like 'a man' in (20) simply serve to *introduce* the object the speaker has in mind to the hearer without requiring him to *re-identify* this object. On the other hand uses of definite referring expressions like 'Tonga' or 'this

number' usually serve to relate the hearer to the object the speaker has in mind by requiring of the hearer a form of *re-identification.* In particular, uses of proper names or many uses of definite descriptions ask the hearer to re-identify the object the speaker has in mind as an object the hearer has seen or heard of before, whereas uses of demonstrative terms like 'this number' ask the hearer to re-identify the object the speaker has in mind as one which the hearer is currently perceiving. In order to make these distinctions and the different forms of re-identification more precise, more has been said about the underlying mental states of the communicating agents; this will be done in the following chapter. Yet let me first point out some other important distinctions with regard to the class of referring expressions which will prove to be relevant in characterizing referring acts.

(d) Given the intimate relation between referring expressions and referring acts one might wonder whether the latter cannot be characterized more closely in terms of the former. What might be proposed is to make the use of certain (kinds of) referring expressions a *necessary* or even a *sufficient condition* for the performance of referring acts. The obvious advantage of such a characterization would be that it would not involve any dubious mentalistic notions like 'referential intention' or 'having a thing in mind', or at least in addition it would involve some more precise notions. Nevertheless I do not think that such a characterization is feasible. The use of certain expressions will neither be a sufficient nor a necessary condition for the performance of referring acts. That it cannot be a sufficient condition follows on one hand from the fact that some referring expressions also get used to perform other communicative acts than referring acts, for instance the indefinite descriptions in (18) and (19) above. The use of these expressions cannot be a sufficient condition for being credited with having performed a referring act. And further it should be noted that even those referring expressions which one might consider as "hard-core" referring expressions, for instance proper names, can be *mis-used.* Imagine for instance someone who has not fully learned the English language and who mistakenly thinks that 'is Frege' means 'is frantic'. This person might say while listening to some music by John Coltrane:

(21) This is Frege.

Although he utters an expression which would normally be classified as a proper name, that person does not perform a referring act with it. Thus simply the use of certain expressions will never be a sufficient condition for being credited with having performed a referring act. It is first of all the speaker's underlying referential

intention which determines whether he performs a referring act or not.[4]

More plausible seems to be the claim that in order to perform a referring act it is a necessary condition to use a referring expression. That is, if a speaker uses an expression other than a referring expression he would not perform a referring act; even if he uses the expression with the required referential intention. Yet also this claim strikes me as implausible. Consider in this regard the following example: Bill, John and their German friend Frank are at a party. Bill and John get into a conversation about men becoming more and more stylish these days. John, who despises this development, asks Bill:

(22) Do you know someone who uses men's perfume?

As a matter of fact Bill knows someone, namely Frank. Yet he does not want to say this directly, for instance by saying 'Frank does', since he wants to be polite to Frank who might be listening. Nevertheless he wants to convey the information that Frank uses men's perfume to John and instead he says the following:

(23) Some German men do!

In uttering this sentence John is clearly not using any referring expression but only the quantifier expression 'Some German men'. Nevertheless in using this expression he intends to refer John to Frank, and he might succeed in doing so since John knows Frank and he knows further that he is the only German person that Bill knows. In Gricean terms this situation can be described as follows: although Bill is not *strictly* or *literally saying* with (23) that Frank uses perfume, this is what he *means*, and in fact also what he succeeds in getting across.

What this and similar examples suggest is to distinguish between two kinds of referring acts: between *conventionally performed* referring acts and *non-conventionally performed* ones. A referring act belongs to the former class if the speaker uses a referring expression, whereas it belongs to the latter class if he uses some other kind of expression which is not commonly used to perform referring acts. In the latter case it will be said that the referring act has been performed *indirectly*. Most of the referring acts we perform are performed by the use of referring expressions. Nevertheless in some cases like the above one it is more suitable to perform a referring act indirectly. In such cases the risk is higher of not

[4] What might be said against this is that whenever a name like 'Frege' gets *rightly* used one is performing a referring act. Yet what could it mean to say that one rightly uses a referring expression, if not that one uses it with the right kind of intention, that is with a referential intention.

being understood by the hearer since he might not recognize that the speaker is performing such an act, or not recognize which object the speaker intends him to refer to. In the following the focus will be first of all on conventionally performed referring acts, and I will just speak of referring acts. Yet what will be said with regard to them also applies in most cases to the non-conventionally performed ones.

(e) Among the conventionally performed referring acts one can further distinguish between those which are performed by *type-referential* expressions and those which are performed by *token-referential* ones. By type referential expressions I mean those which include as part of their linguistic meaning a feature which indicates to an audience that a speaker who uses them intends to refer to an object that he has in mind. For instance the meanings of the indexical 'I' or of the proper name 'Mary' include such a feature. This makes it that someone who encounters them in a sentence like 'I love Mary' will come to believe that there are certain individuals to which the speaker intends to refer.[5] Not all expressions which have been considered as referring expressions are type-referential. For instance above it has been pointed out that indefinite descriptions can be used to make purely general remarks as in (18) and (19). Another good example is the pronoun 'it' which is frequently used to perform referring acts, but which also has other uses. In (24) 'it' has a *referential use* as it has been called by Searle (1969), whereas in (25) and (26) it is not used in such a way:

(24) My camera got stolen. It was a gift by my parents.
(25) It is a pity that my camera got stolen.
(26) It is raining.

With regard to examples (25) and (26) it seems implausible that one uses the pronoun 'it' to refer an audience to a particular object one has in mind. The underlined expressions in (25) and (26) qualify only as token-referential expressions. In this regard it should be noted that expressions like 'some German men' as used in (23) do not even qualify as token-referential, since they are not frequently used to perform referring acts but only under very rare circumstances.

(f) There has been a long debate whether definite descriptions are to be considered as type- or token-referential. What is widely adhered to these days is Donnellan's (1966) view according to which definite descriptions have two uses, a

[5] The uses of these terms derives from Recanati (1993), in particular the former one. As he spells it out "a term *t* is type referential if and only if it meaning includes a feature ... by virtue of which it indicates that there is an object *x* such that an utterance of *G(t)* is true or more generally satisfied if and only if *x* satisfies *G( )*."

referential and an *attributive use*. The following example which closely resembles one given by Donnellan in his influential paper 'Reference and Definite Descriptions' should make this distinction more clear: assume a person called Smith has been murdered and you don't know who his murderer is. In the light of how brutally Smith has been murdered you might say the following:

(27) The murderer of Smith must have been insane.

According to Donnellan you would use the definite description here attributively, namely in the sense that you intend to make a remark about whoever it is that satisfies the descriptive condition 'being the murderer of Smith', without actually having any particular person in mind. This is different in the referential case, which can be explained as follows: assume that the police caught some person which they consider to be the murderer of Smith and you and a friend from work follow his trial on TV - assuming you live in the US where trials are shown on TV. Now the next morning at work you might say to your friend the following:

(28) The murderer of Smith was lying yesterday.

In this case you would be using the definite description referentially, namely to refer to that person who you have seen on TV at the trial and which you take to be the murderer of Smith. Note, even if that person would not satisfy the definite description by not being the murderer of Smith, there is a sense in which you would be relating your audience to him. Wettstein (1981) sums up this distinctions between the two uses of definite descriptions as follows:

> "... [definite] descriptions are sometimes used to call attention to a particular object the speaker has in mind [referential use] and sometimes used to speak of whatever it is that has certain properties [attributive use]". (p. 39)[6]

Although there has been some debate whether there really is such a distinction between two uses of definite descriptions, these days most authors accept it. What they mainly argue about is how our intuitions regarding it are to be accounted for, and in particular whether an account is to be sought at the level of what is said or on the level of what is meant. Some authors like Barwise and Perry (1983) or Wettstein (1981) have argued that the difference lies at the level of what is said by remarks like (27) and (28). Their proposal is that different propositions or contents are expressed by remarks like the above ones. Others like Bach (1987),

[6] What is standing in the brackets are the author's comments.

Kripke(1979) or Evans (1982) think that the difference lies at the level of what is meant by them respectively. That is, there is no difference in what the speaker says by such remarks, but only in what he means by them. The advantage of such a proposal is that it allows one to keep the semantics simple. In fact, authors who pursue this line commonly adhere to *Russell's analysis of definite descriptions.* According to this analysis a sentence of the the form 'The D is P', where 'The D' is some definite description and 'is P' some predicate, gets analyzed as the following quantified sentences:

(29) (Ex) (y) ((D(y) <--> y = x) & P(x)

It follows that sentences like (27) or (28) above will both be true if the corresponding quantified sentences are true, and further that the propositions expressed by them are in both cases of the same kind, namely *uniqueness propositions* of the form: there is one and only one F and it is P. For instance with (27) and (28) one would say respectively: there is one and only one murderer of Smith and he is insane/was lying yesterday.

In this work I will remain neutral on whether there is such a difference at the level of what is said, or whether it only lies at the level of what is meant. This is legitimate since what is more relevant for studying the question of success in communication, as has been argued above, is what is meant by speakers in uttering certain expressions and not what is said by their utterances. Now the opponents in the debate both assume that there is a difference at the level of what is meant by attributive and referential uses of definite descriptions, or by remarks which have such uses as constituents. The interesting question is: what does this difference on the level of what is meant amount to? Above it has been said that in using a definite description referentially a speaker intends to refer an audience to some particular object he has in mind, whereas with an attributive use he simply intends to make some general remark along the lines of Russell's analysis, without having any particular object in mind to which he intends to refer his audience. Accordingly, referential uses would qualify as referring acts whereas attributive uses would not, since what has been considered to be distinctive of referring acts so far is that the speaker uses some expression to refer his audience to a particular object he has in mind.

Now one obvious problem with this initial characterization of the referential/attributive distinction is that it rests on the notoriously vague notion of 'having a thing in mind'. As long as we do not have an analysis of this notion, the proposed characterization will not count as being explanatory. But further note, it is not even clear whether this notion, given our intuitive understanding of it, can be

used in drawing the referential/attributive distinction. For also with regard to the attributive uses of definite description it is not implausible to think that the speakers have certain objects in mind to which they intend to refer their audiences. Bach (1987) for instance writes in this regard:

> "A speaker who uses 'Smith's murderer' attributively and has no beliefs about who Smith's murderer is could still be said to have Smith's murderer in mind, though only under the description 'Smith murderer'." (p. 110)

Thus it might be said that in using the definite description 'Smith's murderer' in (27) attributively, the speaker intends to refer his audience to this object he has in mind. Accordingly referential uses cannot simply be distinguished from attributive uses of definite descriptions by claiming that in one case there is an object in mind to which the speaker intends to refer and in the other case there is not.

Many authors have thought that the referential/attributive distinction can be drawn in a different way, namely by appeal to the notion of a singular proposition.[7] What has been suggested is the following: in using a definite description attributively the speaker means by the embedding remark a Russellian uniqueness proposition, whereas in using it referentially the speaker means by the embedding remark a singular proposition, which has the intended referent as constituent. Bach (1987) expresses this view as follows:

> "When a speaker uses a description attributively in uttering a description sentence, he is asserting a uniqueness proposition. When using the description referentially ... he is also asserting a singular proposition about the individual he takes ... to satisfy the description." (p. 102)[8]

Accordingly with (27) above one would mean the uniqueness proposition expressed by the following formula:

(30) (Ex) (y) ((is-murderer-of-Smith(y) <--> y = x) & is-insane(x)

Whereas with (28) one would mean the following singular proposition which has a certain individual *o*, namely the individual seen on television, as constituent:

(31) *<was-lying, <o>>*

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[7] The notion of a singular proposition was first introduced by Kaplan (1977). Such propositions are commonly conceived as ordered pairs of the form *<R, <o, o', ...>>* where R is a n-place relation and *o, o', ...* a sequence of n particulars.

[8] It should be remarked that Bach assumes here that the distinction is to be sought at the level of what is meant; on the level of what is said in both cases a uniqueness proposition get expressed.

Although this analysis of the distinction between referential and attributive uses of definite descriptions has some initial plausibility, I think it fails as a complete analysis. The problem is that it presupposes that in using a definite description referentially one always refers to an object, namely to the one which occurs as constituent in the meant singular proposition. Now as a matter of fact definite descriptions can also be used referentially without actually referring to an object. Consider in this regard the following examples:

(32) The lake located next to the two rocks will save our lives.
(33) The man with the red coat and the rod comes every year.

If we imagine sentence (32) was uttered by someone who has a Fata Mogana of a lake and sentence (33) by a child who intends to make a remark about Santa Claus, then in both cases there would be no singular propositions meant or asserted. For in both cases there were no objects to which the used definite descriptions referred, at least in the robust sense of 'being an object of reference' as stated in section 2.3. Thus referential uses of definite description cannot be analyzed simply as those uses where speakers mean by the embedding remarks singular propositions. For there are cases where agents use definite descriptions referentially but where no singular propositions get expressed since no objects are referred to.[9]

One might object against this line of reasoning that the uses of the definite descriptions in (32) and (33) do not really qualify as referential uses but only as attributive ones, and accordingly they cannot be considered as counterexamples against the proposed analysis. I do not find this objection very plausible since under the imagined circumstances the uses of the definite description clearly do not qualify as attributive ones, because the speakers do not mean uniqueness proposition by those remarks. For instance the person who takes himself to be seeing a lake and utters (32) above does not mean by this utterance the same one would mean by uttering the following sentence under the circumstances where one has not a particular lake in mind:

(34) I want to swim in the biggest lake on earth.

With regard to an utterance of this sentence it is plausible to say that what one

9 The best that can be said is that in referentially using a definite description the speaker *intends* to express a singular proposition; although it has to be added that this only holds for cases of discourse about reality. Yet the central problem then will be to make more precise what is meant by saying that someone intends to express a singular proposition, without actually expressing one. What kind of mental state is he in which differs from the one which underlies the attributive uses of definite descriptions?

means is the following: I want to swim in just the one and only one lake on earth which is the biggest in size, whichever lake that is. Yet with regard to the use of the definite description in (32) such a paraphrase does not seem plausible. There the speaker does not mean by the utterance that the one and only one lake which is next to two rocks will save their lives, whichever lake this is. Rather he wants to say of a particular object which he takes to be the object of his current perception, that it will save their lives. And he uses the definite description to draw the hearer's attention to just this object.

To sum up, what the discussion has shown is that characterizing referential uses of definite descriptions solely in terms of the idea of there being a singular proposition asserted or meant by the embedding remarks is not very plausible. For agents can use definite descriptions referentially without actually referring to any objects, and hence without expressing any complete singular propositions. Further, it has been pointed out that characterizing referential uses of definite description in terms of the notion of having a thing in mind is also not very illuminating. For it is not implausible to think, as argued for by Bach, that agents also have things in mind to which they intend to refer when they use definite descriptions attributively. Thus having a thing in mind cannot be considered as a distinctive mark of referential uses of definite description, contrary to what had been suggested above. In fact this also casts doubt on the initially made claim that referential uses of definite descriptions qualify as referring acts whereas the attributive ones do not. For if under both kinds of uses speakers can be said to intend to refer to some objects they have in mind, then both will qualify as referring acts - given the intuitive characterization of referring acts adhered to so far. In the following chapter I will argue that this is indeed the case. Nevertheless, the referring acts performed by attributive and referential uses of definite description differ. The question is, how do they differ? In short, what will be proposed in the following chapter is that the underlying mental states differ. In the attributive case the speaker intends to convey a thought that is only *aiming at an object*, whereas in the referential case the speaker intends to convey a thought which is *grounded in an object*, or at least one which he takes to be grounded in an object. In order to draw this distinction we have to look first in more detail at the mental states which underlie our referring acts. This will be done in the next chapter. Studying the underlying mental states will not only yield a better understanding of Donnellan's referential/attributive distinction, but most importantly it will yield a better characterization of referring acts; so far have we not moved beyond the intuitive characterization in terms of referential intentions and having things in mind.

2

Mental States in Referential Communication

In accounting for communication many have adhered to the intuitively plausible *mental state model*. According to it communication is seen as a process which essentially involves the "conveyance" or "reproduction" of agents' mental or psychological states. The purpose of this chapter is to state this model in more detail and to apply it to the phenomenon of referential communication. In doing so a simple theory of mental states will be proposed which not only makes the notion of referential communication more precise, but in addition provides the framework for later discussions of the question of what communicative success consists in. Essentially this theory will be a sort of representational theory. Those who do not like such theories should note that its aim here is rather more methodological than dogmatic, by which I mean that it should not be seen so much as presenting "the right theory" of mental states but rather as providing the tools for discussing a certain type of communication, namely referential communication. In the first section of this chapter the mental state model of communication will be introduced in general terms. The main questions it raises will be pointed out and strategies for answering them will be discussed. Then in the next section a first step will be made in applying this model to the phenomenon of referential communication or of referring acts, as cases of this form of communication have been called alternatively. What I will come up with here is a representational account of the mental states which underly our referring acts, that is of those mental states which have been described so far by appeal to the notion of "having a thing in mind". According to the proposed account there will be certain representations for objects, called *ideas*, which are distinctive of those underlying mental states. More precisely, in performing a referring act a speaker is entertaining a certain idea which

he aims to "reproduce" in some way in the hearer, and in understanding the referring act the hearer must come to entertain an idea as well, namely one which corresponds in a certain way to the speaker's idea. The purpose of the remaining two sections of this chapter is to make the nature of these ideas and the proposed characterization of referring acts in terms of them more precise. In this regard I will first point out what I take to be their central synchronic features, and in particular explore the widely held conception of ideas as being associated with certain sort of object-files. Then in the last section their diachronic features will be discussed in more detail. In this context a distinction between two kinds of ideas will be proposed which will throw some new light on Donnellan's *attributive/referential* distinction.

1. The Mental State Model of Communication

Most proposals regarding the question of what communication and communicative success consists in can be seen as giving content to a very general picture. It is the picture of communication as some form of *soul-to-soul transfers*, as Grice (1976) has called it. According to this picture communication is seen as a process which consists in the conveyance or reproduction of agents' mental or psychological states.[1] Grice describes this process in more general terms as follows:

> "... a certain psychological state *s* in certain circumstances is followed by a certain utterance *U*, made in certain circumstances, which in turn, if the circumstances are right, is followed by a particular instance of a further psychological type ..., a state not now in the communicating creature but in the creature who is communicated to." (p. 287)

In particular, communicative success is assumed to obtain under this *mental state model* of communication if and only if the agents' psychological or mental states come to *correspond* in a certain way. That is, they must come to share some properties or features and thus are in a certain sense of the same type. Consider the following example which illustrates this picture and the notion of communicative success it yields: John thinks that Mary would like a Miles Davis record as a birthday present and he wants to inform Bill about Mary's supposed wish. What John does when meeting Bill on the street is to utter the sentence: 'Mary would like a Miles Davis record as a present'. Under normal circumstances then Bill will also come to think that Mary wants such a record. Thus he will entertain a thought that intuitively corresponds to John's initial thinking state and thus communication

[1] In the following the terms mental and psychological states will be used synonymously.

succeeds.

Two prominent versions of this mental state model of communication are what might be called the *Lockean* and the *Fregean* models. They differ with regard to the features of agents' mental states that are considered to be relevant in accounting for communication and in particular for communicative success. According to the former version which originates in the work of John Locke (1690) mental states are conceived of as being based on relations to a sort of *mental particulars*, for instance *Lockean ideas* . Characteristic of these mental particulars is that they are essentially *agent-bound.* As such they cannot literally be conveyed in communication but only *duplicated,* since something which essentially belongs to you cannot come to be in my possession. The process of communication can then be described as follows: the speaker entertains such a particular, for instance an idea *i,* and as a result of uttering some expression(s) the hearer will entertain another one, an idea *i'*. In particular communicative success is obtained if and only if *i'* is a duplicate of *i.* That is, they must share some properties, for instance refer to the same entities in the world or play the same or a sufficiently similar functional role.

On the other hand according to the Fregean version of the above model of communication, mental states are conceived of as being based on relations to abstract entities like *contents, propositions* or *pieces of information.* In contrast to the mental particulars appealed to under the Lockean version these entities are not agent-bound but can be "grasped" or "entertained" by different agents. Communication then is seen as a process in which certain contents get conveyed and in particular communicative success will be obtained if and only if the communicating agents entertain contents that are identical or at least are sufficiently similar. It should be noted that the two versions of the mental state model can also be combined, namely in the sense that the features of the underlying mental particulars that are relevant in accounting for communicative success are their contents. That is, communication is successful if the communicating agents entertain ideas which have, or by which they "grasp", the same or sufficiently similar contents.

Clearly, as they stand, the mental state model of communication and the Lockean and Fregean versions of it do not present any satisfying answer to the question of what communication, and in particular communicative success, consists in. They only give the general outlines of an account of communication; the important details still have to be filled in. In particular, the following two questions have to be answered:

Individuation-Question: What are the mental states (mental representations or contents) that underly agents' communication efforts?

Success-Question: In what way must these mental states (mental representations or contents) correspond for communication to succeed?

The first question concerns the individuation of these mental states entertained in communication and thus it will be called the *individuation-question.* For instance, in order to account for the "compositional nature" of understanding in communication, uses of particular kinds of words have to be associated with particular kinds of representations or contents or content constituents.[2] This raises the question of what those constituent representations or contents might be; for instance what representations might be required for the understanding of referential uses of singular terms like 'Bill Clinton' or of predicates like 'is the president'. The second question above concerns the notion of communicative success. It regards the relation that *must* hold between the mental states of the communicating agents in order for their communicative efforts to succeed and hence it will be called the *success-question.* Assuming for instance that mental states get individuated as relations to contents then one might ask whether those contents have to be identical for communication to succeed, as Frege has urged us to think, or whether it is some other relation that is constitutive of communicative success.

Historically much work has been done with regard to the individuation question but not with regard to the success question. In numerous articles and volumes it has been discussed what thoughts, beliefs and other mental states are or consist in.[3] In this work I will not deal so much with the individuation question but focus on the success question which has not been discussed very extensively. Clearly, under the above picture of communication as a form of soul-to-soul transfer an answer to the success question presupposes an answer to the individuation question. For one cannot specify and evaluate relations on agents' mental states that are assumed to be constitutive for communicative success without knowing what the relevant mental states are and under what conditions an agent can be credited with instantiating them. Yet in this work I will not develop and discuss so much answers to this underlying question but rather will rely on answers already given. The *main aim* will be to come up with the "right" correspondence-relation on agents' mental states

[2] By compositional nature of understanding I mean the fact that one's understanding of an uttered sentence, in part at least depends on one's understanding of the words which occur as constituents in the sentence. For instance whether one understands the sentence 'Bill Clinton will lose the next election' will depend on one's capacity to understand the use of the proper name 'Bill Clinton'.

[3] See for instance Fodor (1981, 1987), Searle (1983), McGinn (1989) or Anderson & Owens (1990) for examples in this regard.

on the basis of which communicative success can be accounted for. Therefore the focus will be on one particular form of communication, namely on referential communication. Before making this form of communication more precise let me briefly point out the relevance of such a rather theoretical inquiry into the nature of communicative success for more empirical and computational orientated research.

The empirical and computational research has focused predominantly on the question regarding how agents achieve communicative success, or simply the *how-question* as it will be called on from now on. Three influential approaches regarding this question can be distinguished. First, there is the traditional *code model* according to which certain types of mental states are paired with types of language expressions, for instance the thought-type that Bill Clinton is president of the US with the expression type 'Bill Clinton is president of the US' in English or with the expression type 'Bill Clinton ist der Präsident der USA' in German. Such pairings yield certain codes on the basis of which agents communicate simply by encoding and decoding signals like language expressions. This model, which some date back to Aristotele, has found its modern expression in the work of Shannon & Weaver (1949) and in the semiotic tradition, see Saussure (1959) or Eco (1984). Yet many like Grice (1957, 1975) or later Sperber & Wilson (1986) have argued that achieving success in communication involves more than simply the decoding of certain signals. In addition inferential elements play a central role since the psychological state one is supposed to come to be in can in many cases not simply be "read off" from the used signals but has to be inferred. This second model of communication which stresses these inferential elements has been called, not surprisingly, the *inferential model*. In recent years yet a third model has emerged which puts emphasis on an another element in communication, namely collaboration. It takes notice of the fact that in communication agents do not, in many cases, achieve communicative success simply by working on their own, but only by collaborating in one form or other with each other, for instance by asking questions, making corrections in the light of reactions of their communication partners, etc. A model which tries to incorporate these elements can be called the *collaborative model* and has been developed by psycholinguists like Clark (1992) or Anderson et al. (1991).

It seems plausible that there is some truth in each of these models of how agents achieve communicative success. For agents obviously make use, to a certain extent, of codes, inferences and collaboration in achieving communicative success. Yet the question is how these elements are related: when do agents make use of collaboration, and what are the details with regard to these elements? For example, what sorts of collaborative strategies do agents exploit in achieving communicative success? In the last two decades psycholinguists and artificial intelligence

researchers have set out to answer these questions systematically. In empirical dialogue studies for instance, the strategies agents pursue in achieving communicative success and in particular the extent to which they collaborate herein have been explored in more detail; see Anderson et al. (1991) or Clark (1992) for instance. Artificial Intelligence researchers like Hirst (1993) or authors in Cohen et al. (1990) have tried to use those results or to come up with their own in developing artificial communication devices that can engage in successful human-machine communication. Yet no full-blown theory like a "mechanics of communication" which gives a detailed account of how successful communication is achieved has been developed so far. Certainly one reason for this situation is the infancy of the field. Yet another reason might be that no satisfying answer to the question of *what communicative success consists in* has been given so far. That such an answer is highly relevant for the empirical as well as the computational research can be shown as follows:

First, in order to do experiments into how agents communicate successfully one needs *operational criteria* in order to decide when success has been achieved. The central question with regard to a proposed set of operational criteria will always be whether they in fact measure success in communication. There are two ways in which a set of operational criteria can be adequate: (a) they are *consistent* in the sense that whenever the criteria measure communicative success there is success or (b) they are *complete* in the sense that whenever there is communicative success it can be measured by the criteria. Now it is obvious that in evaluating consistency as well as completeness of a set of operational criteria one must rely on one's conception of communicative success. For how would one decide that in some case there is communicative success if not on the basis of one's conception of what communicative success is? Secondly, within the research paradigm of Artificial Intelligence the central question is the following: Which representation base and which algorithm will enable a computer system to achieve communicative success? Two strategies have been proposed in answering this question: (a) answering it by copying successful human communication strategies, and (b) answering it by treating it like any ordinary computational problem. Yet it is obvious that both strategies also presuppose a conception of what successful communication is, that is an answer to the *what-question* as it might be called. With regard to (a) such a conception is needed because in order to find out about the human strategies one has to rely on empirical research which in turn presupposes an account of the what-question, as has been argued before. With regard to (b) an answer to the what-question is needed since the possibilities of a computational solution can only be explored on the basis of an explicit characterization of what one is aiming at, which just is success in communication. Thus to conclude, it seems that there will not be a

justified and complete answer to the how-question without an answer to the question regarding *what communicative success consists in.* In this work the focus will be exclusively on this latter question, yet the hope is that in accounting for it a contribution to the empirical and computational work might be made as well. As has been pointed out before, this question of what communicative success consists in will not be discussed it its most general form but with regard to referential communication. This form of communication will be made more precise in the following sections.

2. A Representational Account of Referential Communication

According to the mental state model of communication, referential communication can be described in the most general terms as follows: the speaker is in a certain mental state, namely in what can be called a *referential thinking state.* By this I mean the state so far characterized by saying that the speaker has a certain thing in mind which he intends to relate the hearer to by the use of some referring expression. The hearer, on the other hand, upon encountering that expression and recognizing the speaker's referential intention will come to entertain or be in a referential thinking state, if no problems occur. And referential communication will succeed if both these states correspond in a certain way. Then it will be said that the hearer *understands* the speaker. Clearly, like the above more general characterization this one does not yield anything like a full-blown account of referential communication either. In order to come up with such an account one has to answer the following two questions which correspond to the previously mentioned individuation and success questions:

Individuation-Question*: What are these referential thinking states that agents entertain in referential communication?

Success-Question*: In what way must these mental states correspond in order for referential communication to succeed?

In this section I will present a version of the Lockean or representational account of mental states that yields an answer to the individuation-question* and thus makes the notion of referential communication more precise. As stressed previously, the aim of this account of mental states is rather methodological than dogmatic. That is, it should not be seen necessarily as presenting "the right account" of mental states but rather as providing the basis for later discussions of the success question. One

advantage of the Lockean account of mental states over the Fregean one is that it allows us not only to talk about the semantic properties of mental states, but also about their causal properties, which, as I will argue later on, play an important role in the fixation of their semantic ones. A further advantage of such an account of mental states is that it allows us to capture the mental or cognitive processes which underlie our communication efforts in referential communication. Taking those processes into account will prove to be relevant for distinguishing between the different referring acts, for instance between the definite and the indefinite ones as introduced in the previous chapter. It is even not implausible to think, as we will see later on, that those processes have to be appealed to in accounting for success in referring acts, namely in the sense that a hearer will only have understood a speaker's referring acts if his interpretation of the speaker's referring expression has been the product of a *reliable* cognitive process. Whether this is right will be discussed in the following chapter, yet in order to discuss this claim we need a framework which allows us to spell out what those underlying cognitive processes are. The representational account presented below will provide such a framework. It should be noted that this account will not only be the product of pure conceptual analysis but will also derive from more speculative considerations regarding how the mind works in communication. As McGinn (1989, p. 170) has put it, we "want to know which (high-level) empirical hypothesis best explains the known features of representational systems such as ourselves" and thereby we engage in some sort of "speculative empirical psychology".

According to the representational theory of mental states our beliefs, desires or thoughts are conceived to involve relations to *mental representations*. For instance when you believe that Schuman wrote a piece called 'Die Winterreise' there will be an inner representation which at least partly makes up this belief. This mental representation is entertained by you under the belief-mode but it can also be entertained under different modes, for instance under the fear-mode or under the desire-mode. Depending on the mode under which such a representation gets entertained one will have a belief, a desire or be in some other kind of mental state. Regarding the exact nature of these mental representations there has been much disagreement. For instance they have been conceived of as some sort of *mental images*, as certain kinds of *symbols* or simply as (actual) *neurophysiological states*. Adherents of the symbol view, which seems to be most widely held currently, further differ in regard to whether they favor a *weak* or a *strong* notion of symbolic mental representations. According to the strong notion mental representations are assumed to be language-like entities with a determinate syntax which makes them suitable as objects of discrete computations. In fact some have even allowed for tokens of natural language expressions as mental representations. On the other hand

adherents to the weak notion of symbolic mental representations deny that they are language-like entities. I believe that in the end concrete empirical research will settle the matter regarding which of these views or which combination of them is the right one. For overall it is an empirical hypothesis that our mental states and operations involve certain kinds of mental representations.[4]

What is commonly agreed upon is that mental representations belong to single agents, that is it they are considered as some sort of *agent-bound* or *subjective* mental particulars, as some have called them.[5] It follows from this that different agents cannot entertain numerically identical representations but at best representations, which share some of their properties. Most prominently mental representations are assumed to have *causal* properties but also *semantic* ones, for instance they refer to objects or have some content. In particular under the representational theory of the mind the semantic properties of our various mental states are supposed to inhere in the mental representations on which they are based. For instance an agent's belief regarding Schubert refers to Schubert because the involved mental representation does so in some way. Further the belief's content is given by the content of the involved mental representation whatever that might be.

It seems plausible that our mental representations are *structured.* For instance my belief that Billy Holiday has a fascinating voice and my wish that she had lived a better life both seem to involve the same *representation of an object*, namely a representation of Billy Holiday. On the other hand my belief that Billy Holiday has a fascinating voice and my belief that Ella Fitzgerald has a fascinating one both seem to involve the same *representation of a property*, namely a representation of the property of *having a fascinating voice.* Indeed many who have developed theories of mental representation have made, in one form or other, the assumption that there are at least these two kinds of mental representations; representations for objects and representations for properties and relations. Different names have been coined for them. The former have been called for instance "ideas" (Locke 1689, Evans 1982, Geach 1960), "notions" (Crimmins 1992), "mental names" (Bach 1987) and the latter "concepts" (Evans 1982, Geach 1960) or also "ideas" (Crimmins 1992, Locke 1689). In the following I will adopt Evans' terminology and call them *ideas* and *concepts* respectively. As I will understand them an idea is something which *purports to be of or about an object* and which makes it possible for a subject to think of or about the purported object in a series of indefinitely many thoughts, beliefs or desires. A concept on the other hand is something which *purports to be of or about a relation or property* and which makes it possible for a

[4] For more details regarding those different views of mental representations see for instance Cummin's (1989) useful book "Meaning and Mental Representations".

[5] See for instance Crimmins (1992) or Fodor and LePore (1992) for those terms.

subject to think of or about the purported relation or property in a series of indefinitely many thoughts. A concept or idea will be called *successful* if it not only purports to be of or about an entity of the respective kind but also if there is in fact such an entity in the world which it represents, that is which it is of or about.[6] Ideas will be abbreviated by *i-S*, *i'-S'*, ... concepts by *c-S*, *c'-S'*, ... , where *S* and *S'* are the subjects or agents to which these ideas and concepts belong.

Ideas and concepts can be combined in some way to form complex representations: to these complex representations one relates when believing or desiring something. I will assume that there are at least the following two kinds of complex representations: *singular representations* and *general representations*. In singular representations one or more ideas combine with a concept which is supposed to hold of these ideas, whereas in general representations only concepts combine in some way. Such singular representations purport to represent objects standing in a relation or an object having a property, whereas general representations purport to represent a general state of affairs, for instance that all humans are mortal or that there is one and only one being who is immortal. It should be noted that concepts will have argument places. Some concepts are for instance one-place concepts and others are two-place concepts. Now it matters crucially how these argument places are filled. For instance when a two-place concept combines with two ideas *i*, *i'* to form a singular representation different singular representations result depending on whether the first argument place is filled by *i* or by *i'*.[7] There will probably be even more complex representations, for instance those which arise out of the combination of the ones just stated. Yet in the following the focus will be exclusively on the simple ones.[8]

It is commonly assumed that ideas and concepts can be associated with natural language expressions which in some sense *express* these representations. Ideas are associated with referring expressions whereas concepts are associated with predicative or relational expressions. For instance you have a Bill-Clinton idea which you associate with the name 'Bill Clinton' and you have a red-concept which you associate with the expression 'is red' or 'red'. Someone who assumes that our mental representations are at least in part given by natural language expressions might even identify mental representations with tokens of natural language

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[6] See Brandom (1994, p. 70 ff.) for this important distinction between *purporting to represent* and *successfully representing*.

[7] Regarding more details on argument places of concepts in our mental representations see Crimmins (1992), in particular chapter 4. Instead of calling them "concepts" he refers to them as "ideas".

[8] Kamp's theory of discourse representation structures provides a nice account of those more complex representations; see Kamp (1990) for instance.

expressions. Yet intuitively it seems that they should be distinguished since everybody is familiar with the experience of thinking of a particular object or having a concept in mind while having forgotten the expression by which it commonly gets expressed.[9] It should be noted that different agents can associate the same natural language expressions with their ideas or concepts. For instance we both have numerically different ideas with which we associate the name 'Bill Clinton' or numerically different concepts with which we associate the predicate expression 'is red'. Such correlations between representations with natural language expressions make communication possible. Speakers exploit them when they intend to "reproduce" some representations in their hearers, and hearers exploit them in "finding out" which representations the speakers intended to reproduce in them by using certain natural language expressions.

On the basis of these different kinds of representations, the notion of a referential-thinking state, as it has been called above, which supposedly accompanies or underlies the use of an expression in referential communication can be made more precise. What I want to propose is the following: a subject *S* being in such a mental state means that *S* entertains in some form an idea which gets associated with the used expression. The process of referential communication can then be described as follows: The speaker, when performing a referring act by using an expression *t*, entertains an idea which purports to represent the object that he intends to refer the hearer to by the use of *t*. On the other hand the hearer, upon encountering the speaker referential use of *t* and possibly upon further interacting with the speaker, will, if communication succeeds, also entertain an idea, namely one that corresponds to the speaker's idea in some way. That is, a referring act involving two agents is successful only if the ideas entertained by communicating agents which they associate with the used singular terms stand in the relevant correspondence relation.[10] The question of communicative success as it arises under this representational description of referring acts or referential communication concerns the conditions under which this correspondence relation holds.

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[9] Clearly, what one might object here is that unless one has some natural language expression in mind one does not really think of an object or property. In the following I will remain neutral with regard to the issue whether ideas and concepts are always given by tokens of natural language expressions. What will be assumed is that they are commonly associated with such expressions.

[10] Within the framework of DRT Kamp (1990) represents this communication inducing correspondence relation by ordered pairs of the following kind '$<x, x'>$' where x and x' are discourse referents entertained by two communicating agents respectively; see p. 80 ff. It should be noted that while he ends up with a similar representational descriptions of referential communication he does not really account for it, that is, he does not spell out the conditions under which discourse referents stand in this relation. Nevertheless his description points in the direction in which it might be spelled out, namely in terms of certain properties of the entertained discourse referents which have been called ideas here.

Clearly, as it stands this characterization of referential communication in terms of speakers entertaining ideas which they intend to reproduce in their hearers is not very precise, since it is not really clear what ideas are and further what it is to entertain them. As it stands it looks as if we have only managed to replace one dubious notion, namely that of having a thing in mind in terms of which referential communication has been characterized so far, by a notion which is not less dubious, namely that of entertaining an idea. Yet I think that is not quite right. For the nature of ideas is already more precise than that of those mysterious things in mind appealed to before. Ideas belong to the class of mental representations and as such they are assumed to have certain properties, for instance they are agent-bound, they have causal properties and also semantic ones. Further, what is assumed to be distinctive of them is that unlike other mental representations they purport to represent particular objects; and if they are successful they indeed refer to some particular objects in the world. Yet it should be acknowledged that in saying this, not very much has been said. The question is whether the nature of ideas cannot be made more precise. What are the distinctive features of ideas? How do they come into existence, what use do we make of them? Are all ideas of the same kind or are there different kinds of ideas? In the following section a simple account of ideas will be developed which provides answers to these questions. On the basis of this theory we will be able to distinguish between the different kinds of referring acts, in particular between referential and attributive uses of definite descriptions. Further it will provide the basis for later discussions of the success question.

3. The Synchronic Features of Ideas

Many have conceived of an idea as pointing, or as being associated, with some sort of *file* or *dossier* on the object it purports to represent.[11] For instance I have a file on Miles Davis which contains the descriptive information of being a trumpet player, of having played with Charlie Parker, of having pioneered jazz-rock, of having died recently, of being called 'Miles Davis', etc. Throughout this work such files will be called *object-files,* a term employed by Recanati (1993). In fact, what will be adopted below is in part Recanati's model of such files. Yet it is important to point out a prima facie terminological and possibly also substantial difference between his model and the one developed here. Namely, where he speaks of *files of information* which are somehow abstract semantic entities I refer to them first of all as *files of representations* which are agent-bound tokens that essentially belong

[11] See Bach (1987), Recanati (1993), Grice (1969), Perry (1980), Forbes (1989) or Evans (1982) for different versions of this file notion.

to particular cognitive agents. According to the model which I will present they will be conceived as information-files in a derivative sense, namely given that the representations which belong to them have certain information pieces as contents. The advantage over Recanati's purely semantic model is that it allows us also to take into consideration the causal properties of such files, which will be relevant later on.[12, 13]

Following Recanati I assume that the object-files associated with our ideas can contain two kinds of representations, namely *conceptual* representations and *iconic* or *pictorial* ones. The former are supposed to be symbolic and are given by concepts, the iconic representations are supposed to be non-symbolic and they can best be seen as some form of mental images. By 'mental image' he means that there is a significant isomorphism between the representation and the object it represents where the isomorphism is to be sought between (a) the relations of the representation to other representations and (b) the relations of the represented objects to other objects.[14] In addition to that distinctive characteristic I think there is another important one which distinguishes iconic representations from conceptual ones: conceptual representations can be expressed directly in natural language whereas this does not hold for iconic representations. Only by conceptualizing them, i.e. recasting them into some concepts, can we express them. In the following, object-files will be represented as sets of representations. For instance if the file simply consists of certain concepts c, c', ... then it will be represented by the set:

$\{c, \ldots\}$

Iconic representations will be represented by , ' in order to bring out their pictorial character. They also can be the elements of the sets by which object-files get represented; thus we can have for instance the following set:

$\{c, c',$, $'\}$.

In the following the object-file pointed at or associated with an idea i will be abbreviated by *File(i)*. It will be assumed that all ideas of an agent point to such a

[12] Note that this difference might be overstated since Recanati also uses the notion of a representation when he states his account of those object-files, see for instance p. 104 f He speaks also of *tokens* of those files which clearly indicates that he has their concrete realizations in mind.

[13] Within artificial intelligence and cognitive science representations have been conceived quite generally as files or file-like structures. For a critical discussion of this view see Woodfield's (1991) recent article "Conceptions".

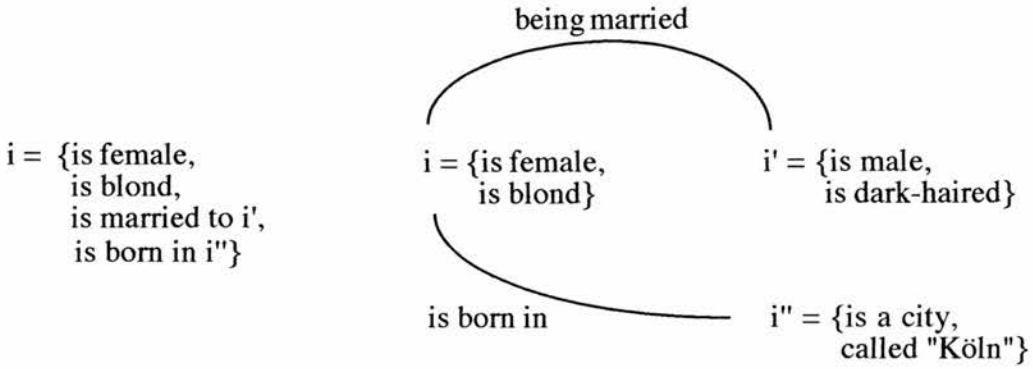
[14] See Recanati (1993), p. 117.

file, further that they can only point to one such file and that no two ideas of an agent can point to the same file.

Many of the ideas we possess are associated with *mixed* object-files. By this I mean that their object-files contain conceptual as well as iconic representations. For instance the ideas I have of my mother or of my father are both of this kind, i.e. I think of these individuals in conceptual as well as in pictorial ways. Other ideas we have contain predominantly representations of one of these two kinds. For instance the idea I have of the tree I look at now contains mainly iconic representations. Or the ideas I have of Cicero or of Aristophanes contain mainly conceptual representations. They purport to represent certain particular objects purely in conceptual ways, namely as certain roman or greek authors, etc. In the following I will call ideas with mixed object files *mixed ideas*, and those with purely conceptual or iconic object files *conceptual* and *iconic ideas* respectively. It is not clear whether we will ever possess iconic ideas, since most of our ideas seem to be associated at least with some general conceptual representations. For instance when I look out of the window and I come to have a tree idea, there will be some conceptual representations associated with it with contents like *'being-a-material-object'*, etc. Thus iconic ideas might turn out to be some sort of limiting cases which never really occur; because all our ideas contain some conceptual representations. Note, this is not so with regard to conceptual ideas, since many of our ideas are of this kind. For instance the ideas which purport to represent some historical figures are frequently associated only with conceptual representations.

With regard to the representations that make up an idea's object file I will assume that they have one and only one unfilled argument place which is to be filled by the idea itself. In particular this seems plausible with regard to the concepts associated with an idea since they are supposed to represent the properties which are taken to hold true of the idea's purported referent. Among the concepts that make up an idea's object file some will be *ordinary one-place concepts*, yet other will be what I call *hybrid one-place concepts*. By hybrid one-place concepts I mean those which are given by n-place concepts that have n-1 of their argument places filled. If we identify concepts with predicates, then 'is hungry' will be an ordinary one-place concepts, whereas 'is the father of Bill Clinton' or 'is born in Tenessee in 1923' will be hybrid one-place concepts. Hybrid one-place concepts are made up of higher-place concepts which have all their argument places filled except one. It seems plausible that many of the concepts associated with our representations for objects are hybrid one-place concepts. They create some sort of *links* between the different ideas we have. For instance the idea I have of my father is linked to the idea of my mother in the sense that I associate with the former the concept 'is married to i', where i is my mother idea. It is an interesting psychological or

cognitive science question whether such interconnecting concepts are explicitly represented in the mind or whether they are implicitly represented in the sense of there being only certain interconnecting links between our ideas. Graphically this difference can be represented as follows:



(a) (b)

In case (a) all the interconnections which idea *i* has to the other two ideas i and i' are explicitly represented, whereas in case (b) they are only implicitly represented by certain links between those ideas. At this point I will remain neutral in regard to how such interconnecting concepts are represented to the mind. I think one is justified in doing so since the level of description here is not that of physical realization or that of exact mental processing, but a highly abstract level that spells out the basic elements which have to be acknowledged in accounting for our mental states and mental processes that underlie referential communication. Accordingly I will continue to say that those interconnecting concepts are part of the ideas' object files, leaving it open whether they are explicitly represented to the mind or only implicitly. Yet later on when the cognitive processes that underlie our attempts to understand other agents' referring acts will be discussed, this issue will be taken up again.

As has been pointed out before, the conceptual and iconic representations that make up an object file associated with an idea *i-S* of a subject *S* can themselves represent some entities in the world. With regard to the conceptual representations it has been assumed that they are our means for representing properties and the same

assumption will be made with regard to those perceptual representations, that is they also represent properties if they are successful. In the following I will call the resulting set of properties, which an idea's object-file yields, the idea's *satisfaction set*. For instance if $\{r1, \ldots, r_n\}$ is an object-file associated with an idea i-S of a subject S where the r_i are either conceptual or iconic representations and $R_1, \ldots, R_n$ are properties represented by these representations then $\{R_1, \ldots, R_n\}$ gives the satisfaction set of i-S. The satisfaction set associated with an idea i via its object-file will be abbreviated by *Sat(i)*. It should be noted that a satisfaction set is not something subjective or agent-bound but something objective. Different agents' ideas can have the same satisfaction set. I have chosen here the name satisfaction set because such a set provides a kind of satisfaction condition for an object being the referent of an idea.

4. The Diachronic Features of Ideas and Donnellan's Referential/Attributive Distinction

Ideas also have *diachronic features* in the sense that they come into existence at some time, that they may cease to exist at some later time. For instance you have a Bertrand Russell idea which you probably have acquired some time ago. Whereas this idea is still in your possession, other ideas just get introduced temporarily, for instance those ideas which come into existence when one perceives a car or a person on the street. Yet also our more "encyclopedic" ideas which we "carry around" for some time might be given up later on. For instance you might acquire an idea of a person you meet during a holiday trip which you will possess for a while until it disappears from your cognitive system. Further it should be noted that the object-files associated with our ideas may change over time. For instance your Bertrand Russell idea has probably changed during its lifetime in the sense that the object-file associated with it has expanded or that some representations have been omitted or replaced by others. In the following I will thus speak not simply of an idea's object file but of an idea's object file relative to some time which will be abbreviated by *File(i, t)*, and likewise also of an idea's satisfaction set relative to some time which will be abbreviated by *Sat(i, t)*.[15]

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15 It is an interesting question to what extent ideas are identity-dependent on their associated object-files. It seems plausible to assume that there is some sort of dependence. For if an idea's object-file completely changes then it will also not be the same idea any more in the sense of purporting to represent the same object. On the other hand an idea's object file can certainly change to a certain extent while the idea remains the same. In the following I will ignore this question and assume that the object-files associated with our ideas are more or less stable over time.

What seems plausible is that ideas and their associated object-files can originate at least in the following three ways:

(a) in perception;
(b) in imagination;
(c) in communication.

In cases of perception-based introduction the agent's idea derives from a perceptual state which purports to be of an object out there in the world. Cases of hallucination in which a new idea gets introduced will also classify as perception-based introductions since they are also based on such perceptual states. The problem with these cases is only that they are not veridical, that is there is not really an object of the right kind which gets perceived, possibly not even any object. In cases of imagination-based introduction the agent consciously "invents" an idea, as it happens for instance in the course of writing a novel or simply in communication or reasoning. Finally in cases of communication-based introduction the agent acquires a new idea on the basis of encountering some linguistic expression(s), usually some referring expression. For instance when you hear someone using a certain name in communication this might happen. If the expression encountered has been in fact used in a referring act there will be an underlying idea which he must have entertained. This idea will be called the *base-idea* of the newly introduced idea. It should be noted that not all communication-based ideas must have a base-idea. For instance if you hear an utterance of 'Peter is clever' produced by a parrot then it seems plausible that your newly introduced idea will have no base-idea.[16]

On the basis of these considerations regarding the origin of ideas it seems plausible to distinguish between two kinds of ideas, namely between those ideas that are *taken to be grounded* in an object, and on the other hand those ideas which are merely *taken to be aiming* at an object without taken to be grounded in one. In saying that an idea is taken or intended to be grounded in an object I mean that it is assumed that some sort of contact(s) has been made with its referent, by oneself or by other agents from whom one has acquired the idea in communication, and further that the representations in the object file associated with the idea derive from such contact(s). Usually such grounding contacts will be *perceptual*, i.e. oneself or others have perceived the object which has led to the introduction of the idea. For instance your ideas which purport to represent your mother or your father, or

[16] Besides the ideas that have been introduced in such ways there might also be innate ones, that is ideas which agents do not acquire but which are somehow build-in or hard-wired. For instance one might think that the idea one has of oneself is not acquired but innate. In order to simplify the discussion in the following it will be assumed that all our ideas are acquired in some way, yet not much rests on this assumption.

individuals like Bill Clinton or Margaret Thatcher you take to be perceptually grounded in the their referents. Yet with regard to those ideas that purport to represent fictional characters like Sherlock Holmes or James Bond it arguable that the respective grounding contacts will be of a different sort; later on I will come back to this issue. In the following I will call an idea which is taken to be grounded in some object a *grounded idea.*[17]

Grounded ideas contrast with what I will call *aiming ideas* which are merely taken or intended to be aiming at an object. In saying that an idea is taken to be aiming at an object without being grounded in one, I mean that it is not assumed that the relevant sort of contact (usually a perceptual one) with the referent has been made. In such cases there will be a conceptual representation, or a set of such representations, associated with such an idea which is taken to be *reference-fixing.*[18] Now, a representation c (or a set C of representations) associated with an idea i is (taken to be) reference-fixing if and only if the person who possesses i assumes that c (or C) determines the object which i is of, namely in the following sense: the referent of i is that object which uniquely satisfies the property expressed by the reference-fixing concept (or the concepts in the set). Imagine the case where you wonder how the winner of this week's lottery feels, what he is doing right now, etc. without actually having a clue who he is. This is a case where you are entertaining an idea which you merely take to be aiming at some object without taking it to be grounded in any object. The concept which is reference fixing here can be identified with the predicate 'is the winner of this week's lottery'. Alternatively imagine the case where you organize a huge banquet and you decide that someone will give a speech. You might think or talk for a while about the person who is giving the speech at the banquet. Thereby you will entertain an idea which you merely take to be aiming at some object without taking it to be grounded in one. The concept which is reference fixing can be paraphrased by the predicate 'is the person who is giving a speech at the banquet'. Aiming idea are usually invented by the agent who employs them, yet they can also be acquired in communication. In fact, as I will argue later on, most attributive uses of definite descriptions just serve this end.

Aiming ideas usually are conceptual ideas, i.e the representations that make up their object-files are conceptual representations and not iconic ones. In many cases

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[17] It should be noted that an idea can be a grounded idea without actually being derived from an object. For instance the perceptual contact might not have been veridical, as in the case of hallucination.

[18] This term derives from Recanati (1993) who proposes a very similar distinction between two kinds of object-files, those that contain reference-fixing representations and those where the representations are merely taken to be informative of the putative referent. This latter term will be discussed later on.

there will be only one concept respectively which makes up their object-files, namely the one which is taken to be reference-fixing. Yet this must not always be the case. For instance you can entertain an idea that aims at the winner of this week's lottery, but which has other concepts in its object file than the reference-fixing one. For instance it might have concepts like 'is rich' or 'is happy' which you assume to hold of the object that satisfies the reference-fixing description. But their role is not taken to be reference-fixing but rather taken to be *informative*. By a concept *c* taken to be informative I mean that the person who associates it with an idea *i* assumes it only to "describe" the purported referent of *i* but not to fix it; the referent of *i* is taken to be fixed otherwise. Thus, with regard to representations which are taken merely to be informative, it is assumed that they can "incorrectly describe" the purported referent of the idea they are associated with, in the sense that the properties expressed by them do not hold of the referent of the idea. For instance your aiming idea with the reference fixing concept 'is the winner of this week's lottery' might refer to an individual which in fact is not happy. In this case the concept 'is rich' which is associated with your idea would constitute some sort of "misfit". With regard to the reference-fixing concepts it is not assumed that they can constitute such misfits since they are supposed to determine the referent. Yet they might not apply to any object, in which case one would think that the idea they are associated with is of no object.

Aiming ideas usually come into existence in anticipation of the time when contact with the referent is made. For instance you might have a date with someone tonight which has been arranged by some other person. You do not know the person who you will meet. Nevertheless you might think beforehand about the person coming tonight, for instance wonder whether he will be nice or not, etc. In this case it seems plausible to say that you are entertaining an aiming idea in anticipation of the time when contact with the referent is made. Other aiming ideas are simply invented for fun, for instance in order to reason or talk about the tallest man on this planet, or the highest mountain, etc. Irrespective of the purpose for which they have been introduced, most aiming ideas can apply to objects. For instance the aiming idea that purports to represent the person who is coming tonight can be applied to the person who in fact is coming. In such a case the aiming idea turns into a grounded idea, that is it will be now be taken to be grounded in some object - later on this process of applying our ideas will be described in more detail. An aiming idea can also be identified with a grounded idea one already possesses, in the sense that one comes to think that the grounded idea is of that object which the aiming idea aims at. For instance you might come to identify your idea which aims at the highest mountain with your Mount Everest idea, which is a grounded one. In such cases your aiming idea might simply disappear. Yet you might also retain it since you are

not sure whether it really aims at the object which you take your grounded idea being grounded in.

Grounded ideas as well as aiming ideas can combine with concepts to form what has been called singular representations above. A singular representation <*c*, *i*> where *i* is a grounded idea will be called a *grounded singular representation* and one where *i* is an aiming idea will be called an *aiming singular representation*. Many of our beliefs, thoughts or desires will be based on such representations. These mental states will all be singular in the sense that they purport to represent a particular object. Nevertheless they differ in regard to whether they are taken to aim at the object they purport to represent or whether they are taken to be grounded in their purported referent. Over the last decades many authors have acknowledged that a distinction can be drawn between two kinds of thoughts (beliefs, etc.) that purport to be of objects. The two kinds of thought have usually been referred to as *de re* or *de dicto thoughts*, or as *descriptive* or *information-based thoughts*. Yet the problem has always been to make this intuitive distinction more precise. The theory of ideas developed here can be seen as making a proposal in this regard: a thought is de re if it involves a grounded singular representation, i.e. one that is taken to be grounded in an object. And a thought is de dicto or descriptive if it involves an aiming singular representation, i.e. one which is merely supposed to be aiming at an object. Before I move on to matters of communication, let me briefly compare this proposal with two prominent recent ones, namely the proposals by Bach (1987) and by Recanati (1993).

Bach (1987) has argued that a distinction between de dicto and de re thoughts is to be drawn in terms of how their reference gets fixed. The reference of a de dicto thought is assumed to be fixed satisfactionally, that is such a thought will be of that object which uniquely satisfies a certain descriptive condition associated with it. On the other hand the reference of a de re thought is assumed to be fixed "*relationally*", that is such a thought will be of that object from which it causally derives in a certain way. Recanati (1993) has supplemented this proposal by a further condition. In the case of a de dicto thought the way the purported referent is thought of will enter its truth condition in the sense of its being *Russellian*. On the other hand in the case of a de re thought the way the purported referent is thought of is assumed to be "*truth-conditionally irrelevant*". The truth conditions of such a thought are identified with that of a singular proposition. Thus here the object the thought is of enters directly into its truth conditions, whereas in the case of a de dicto thought only a reference-fixing condition enters in its truth condition. Consider for instance the case where you wonder how the winner of this week's lottery feels and in the course of doing so you come to entertain the thought that he will be happy. Now the claim is that here you entertain a de dicto thought which

will be true if and only if there is one and only one winner of this week's lottery and this person is happy. On the other hand consider the case where you are currently thinking, of your mother, that she is happy, for instance because she is the winner of this week's lottery. In this case your thought would be a de re thought and it will be true if the object it derives from, your mother, is happy.

These proposals show certain advantages over accounts developed previously by other authors. First of all they make de re thoughts not *object-dependent*; that is an agent can entertain a de re thought without actually thinking of some object. And secondly, they also allow for de re thoughts where one thinks of the purported referent under a description or a satisfaction condition. It is only that in the case of a de re thought such a condition will not determine its referent and not enter in its truth conditions. It should be noted that my proposal above also shows these two advantages. Yet it is in a sense weaker than Bach's and Recanati's proposals since it aims to account for the intuitive difference in the two kinds of thoughts solely in terms of differences in function and origin of their underlying mental representations. So far I have remained agnostic whether the referents of such thoughts or representations are fixed relationally or satisfactionally. Clearly, with regard to what has been called aiming ideas and aiming singular representations above it seems very plausible that their referents are fixed satisafactionally. Yet on the other hand with regard to our grounded ideas and the grounded singular representations it is not so clear whether their referents are fixed relationally, that is by appeal to causal factors. This is a claim which needs further justification, in particular in the light of criticism by authors like Searle (1983, 1991) who have argued that the reference of all our mental states is fixed satisfactionally. I see it as an advantage of my account that it allows us to draw a distinction between two kinds of thought or representation which is more or less neutral in regard to the question of reference-fixation, although it clearly hints in the direction of Bach's and Recanati's proposals.

After this comparison let me now turn to an important application of the distinction between aiming and grounded ideas. What I want to propose is that Donnellan's referential/attributive distinction which has been discussed in the previous chapter can be accounted for on the basis of this distinction. In this regard consider again the two uses one can make of a definite description like 'The murderer of Smith'. It was argued that on one hand it might be used to make a statement about whoever is the murderer of Smith, as in the following sentence:

(1) The murderer of Smith must have been insane.

On the other hand it was said that such a description can be used to refer an

audience to a certain particular person one has in mind, for instance to the one seen on television last night. In the following sentence the definite description would be used in this latter way:

(2) The murderer of Smith was lying yesterday.

Now I think that this difference in use of one and the same definite description can be accounted for as follows:

Attributive Use of a Definite Description: In attributively using a definite description *d* a speaker entertains an aiming idea and it is his intention to invoke by the use of *d* a corresponding aiming idea in his audience.

Referential Use of a Definite Description: In referentially using a definite description *d* a speaker entertains a grounded idea and it is his intention to invoke by the use of *d* a corresponding grounded idea in his audience.

That is, in attributively using a definite description one entertains an idea which one takes not to be grounded in any object but merely aiming at some object, and one uses the description to relate the hearer to a corresponding aiming idea. For instance in the case where one uses the description 'the murderer of Smith' attributively, as in (1), it seems plausible that one entertains such an aiming idea, namely one which has 'is the murderer of Smith' as reference fixing concept. On the other hand in referentially using a definite description one entertains an idea which one takes to be grounded in an object and it is one's intention to invoke in the hearer a corresponding grounded idea. Again this seems plausible with regard to the use of 'the murderer of Smith' in (2). The speaker is entertaining an idea which he takes to be grounded in some object, i.e. it derives from perceptual contact with some object, namely with the person seen on television. It is the speaker's aim to invoke by the use of the definite description a corresponding grounded idea.

It should be noted that the distinction between referential and attributive uses of definite descriptions can be generalized to other uses of expressions. For instance names can also be used attributively, namely in cases where they get introduced by some 'reference-fixing stipulation', as Evans (1982) has called it. For instance one might agree to call whoever murdered Smith by the name 'Tom'. This name can then be used attributively, as in the following sentence:

(3) Tom must have been insane.

Characteristic of this use is that one would entertain an aiming idea and not a grounded idea, as one usually does when using a name. This attributive use only differs from the one involving the definite description 'the murderer of Smith' in the sense that the reference-fixing concept of one's underlying aiming idea does not get expressed by the words one uses. Thus we are dealing here really with two different kinds of referring acts: on one hand those where the speaker intends to invoke a certain aiming idea in his audience, and in the other hand those where he intends to invoke a certain grounded idea. Referring acts of the former kind will be called *aiming referring acts* and referring acts of the latter kind *grounded referring acts*.

As has been stated before, the central question I am interested in this work concerns the conditions under which referring acts are successful, in the sense that the hearer can be credited with having understood the speaker. Now it seems plausible that a different story has to be told with respect to aiming and grounded referring acts. With regard to aiming referring acts it seems to be a necessary condition that the hearer comes to entertain an aiming idea with the same reference-fixing concept as the speaker's underlying idea. Or more precisely, he must associate with his idea a reference-fixing concept that has the same reference-fixing content as has the speaker's reference-fixing concept. For instance a hearer will only have understood the speaker's attributive use of 'the murderer of Smith' if he comes to entertain an aiming idea with a reference-fixing concept that has the following content: *'being the murderer of Smith'*. On the other hand with regard to grounded referring acts it seems not to be a necessary condition that the hearer comes to entertain an aiming idea with a certain reference-fixing concept. For instance if the speaker uses the definite description 'the murderer of Smith' referentially in order to refer to hearer to a certain individual he has in mind, namely to the one they have both seen on television last night, then the hearer does not have to come to entertain an aiming idea in order to be credited with having understood the speaker's referring act. Rather he has to entertain a grounded idea, and in particular one that corresponds to the speaker's underlying grounded idea in a certain way. A central task of this work will be to spell out in more detail in which way their underlying ideas have to correspond. Intuitively it seems that they simply have to be of the same object. For instance with regard to the Smith-murderer example it seems plausible that the hearer has to entertain a grounded idea which is also of the person seen on television in order to be credited with having understood the speaker. Yet as I will argue later on, this proposal faces central problems which seem to circumvent its prospects altogether. Before I turn to these problems I will first discuss another aspect which seems to be relevant in accounting for success in referential communication, namely the underlying mental processes of *re-*

identification. This will be done in the following chapter.

3

Re-Identification in Referential Communication

In the previous chapter the process of referential communication was described in most general terms as follows: a speaker when performing a referring act by using a referring expression *t*, entertains an idea which purports to represent the object that he intends to refer his audience to. On the other hand, a hearer upon encountering the speaker's use of *t* and possibly upon further interacting with the speaker will, if communication succeeds, also come to entertain an idea, namely one that corresponds to the speaker's idea in some way. Now it seems plausible that the hearer will in many cases not come to entertain a new idea in the course of this process, but he will *link* the speaker's utterance to an idea which he already possesses. That is he will *re-identify* in some way the object the speaker intends to relate him to. Consider in this regard an utterance of the following sentence:

(1) Bill Clinton will win the next election.

In using the proper name Bill Clinton I intend to refer you to a certain individual. In doing so I entertain an idea which purports to represent this individual. You upon encountering my use of this name will also come to entertain an idea. Yet under normal circumstances this idea will not be one which you have acquired in the course of reading this sentence, but one which you already possess. This means that in understanding my use of the name 'Bill Clinton' you come to re-identify the object I intend to refer you to as one you have had contact with before.

In this chapter I want to explore in more detail how such re-identifications work, and in particular discuss their relevance for an analysis of the notion of communicative success in referential communication. Does a hearer, in order to be

credited with having understood a speaker's referring act, have to link, at least in some cases, the speaker's use of a referring expression to some idea which he already possesses? And if such a link has to be established by the hearer, does it have to be established in a certain way? In the first section of this chapter the different forms of re-identification will be described in more detail. Some cognitive and computational models will be discussed which aim to account for the hearers' re-identifications in referential communication. Then in the second section I will address the question of whether hearers, in order to be credited with having understood speakers' referring acts, always have to perform such re-identifications, that is whether they always have to link the speaker's utterance to an idea they already possess. What I will argue is that with regard to certain kinds of referring acts such link-ups are required for communicative success, yet with regard to other kinds of referring acts they are not. In those latter cases it will simply be sufficient for communicative success that the hearer generates a certain local idea on the basis of the speaker's referring expression without linking this idea to any other idea. Then in the final section the focus will be on those referring acts where such link-ups are required to be performed by the hearers in order for them to be credited with having understood the speakers. The question I will address here is whether it matters for communicative success how the respective re-identifications get established.

1. Models of Re-Identification in Referential Communication

Ideas have been introduced in the previous chapter as those mental representations which purport to represent particular objects. As such they will be associated with what has been called object-files. Further it was argued that they can be acquired in perception, imagination and communication. Now it seems plausible that we do not always acquire new ideas and accordingly new object-files but that we also *re-use* the ones which we have acquired before. Most obviously this seems to be the case when we remember certain objects. Then we simply entertain in thought an idea which came into our possession at some earlier time. Yet also with regard to cases of perception and of referential communication it seems plausible to assume that the ideas which we possess get re-used, namely whenever we *re-identify* or at least purport to re-identify certain objects. By re-identification I essentially mean what Evans (1982) has described as "the fact that we group pieces of information together, as being of the same object" (p. 126). Yet where he uses the term "information" to describe this important cognitive ability I will describe it for the reasons stated in the previous chapter by appeal to the representational terminology

chosen here, namely as follows: in cases of re-identification an agent links one newly acquired idea with another idea which usually has already been in the agent's possession, and in this process their associated object-files might get merged. For instance when I see Michael Jackson on the street I will not (only) introduce a new idea but I will re-identify him as Michael Jackson, i.e. somehow employ an idea that is already in my possession which gets linked to my current perceptual idea.

Intuitively it seems plausible that in perception an object currently taken to be perceived can be re-identified in the following two ways:

(a) as an object perceived before;
(b) as an object of which one has heard before.

It makes sense to assume that these re-identifications in perception are based on or are driven by the object-files associated with the ideas an agent possesses. That is, when an agent perceives an object a *temporary perceptual idea* will be introduced with an attached object-file. The object-file purports to provide information on the perceived object. The agent's cognitive system somehow tries to link this idea to an existing idea by "looking" in some way whether the representations in this temporary file, or at least some important ones, match the representations in an existing file. If it does then the perceived object will be re-identified as that object which the existing matching idea purports to represent and in particular the temporary object-file will be merged with the already existing one. That is, new "information" will be added to an existing object-file. If no link with an idea can be established then the temporarily introduced perceptual idea will be treated as representing a new object and it might become a stable idea within the agent's cognitive system.[1]

With regard to referential communication it seems plausible that the alleged referent of a referring expression can be re-identified by the hearer in the following ways:

(a) as an object perceived before;
(b) as an object heard of before;
(c) as an object which one is currently perceiving.[2]

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[1] Empirical and computational work on object-recognition has been concerned with spelling out the exact mechanisms that account for such re-identification in perception.

[2] Since the object currently perceived might also be re-identified in the ways stated above, even more ways of re-identification can result. Yet these can be seen as sort of derived re-identifications, in the following sense: an object talked about gets re-identified as an object currently perceived which in turn get re-identified as an object heard or seen before.

Such cases of re-identification can be described in an analogous way to the perceptual cases above, namely as follows: on the basis of the referring expression used by the speaker, a temporary idea also gets introduced into the hearer's cognitive system. Here the attached object-file will contain those representations that can be derived from the meaning or referential features of the employed referring expression. For instance if a speaker uses the name 'Peter' in communication the hearer will come to entertain an idea associated with an object file that is comprised of the following concepts: 'is called "Peter"', 'is male'. Further, the hearer's cognitive system tries to link this idea to another idea which might be an existing one or a newly introduced perceptual one. If such a link between the temporary idea and a target idea can be established then the object talked about by the speaker will be re-identified as that object which the target idea purports to represent. In particular, the temporary idea might get merged with this idea. On the other hand if no such link can be established a new idea might be introduced, as it quite frequently happens when we read some newspaper where we encounter descriptions of persons we have not heard of before. This idea might also become a stable idea within the hearer's cognitive system.

Work in cognitive science and artificial intelligence has been concerned with spelling out in more detail the principles which underlie the establishment of such link-ups in referential communication. How do hearers manage to link the temporary idea created by the used referring expression with an already existing idea? A simple model which first comes to mind is the following one: the hearer's cognitive system initiates a search for an idea in the representation base that uniquely "satisfies" the representations contained in the object-file of the temporary idea created by the used referring expression.[3] As has been noted in the previous chapter, these representations can be of different sorts. For instance they can be general descriptive representations as expressed by predicates like 'is a man' or 'is tall'. Or they can also be representations which involve reference to some other objects as expressed by predicates like 'is the father of Bill Clinton' or 'is next to Turkey'. The latter kind of representations were previously called hybrid one-place concepts. Depending on the the kind of representation involved the search for the target idea might proceed in different ways. For instance if the object-file of the temporary idea only contains such general descriptive representations, then the cognitive system will simply search for the one idea which has these representations in its object-file. Yet in the case where such complex representations are involved the search might proceed by searching first for the idea that uniquely satisfies the embedded referring representation and then through a link

[3] Such a model can be found for instance in Allen (1987), but also in much other computational work on *reference-resolution* as it has been called.

with another "mediating" idea identify the target idea. Yet irrespective of which kind of representations are contained in the object-file of the temporary idea *i*, the general assumption is that a link with some existing idea *i** will be established if *i** uniquely satisfies the representations contained in *i*'s object-file, either in some direct way or in some mediated way.

Despite its prima facie plausibility it has been argued by several authors that such a model of re-identification in referential communication is inadequate.[4] The main criticism levelled against has been that it is not versatile and robust enough to account for anything like actual human performance. For instance Goodman (1986) has pointed out that in many cases of referential communication hearers initially do not "find" an idea which satisfies the representations contained in their current temporary idea's object-file, yet nevertheless they are able to understand the speakers' referring acts in the sense of performing the required re-identification. It has been suggested that two kinds of mechanisms are operative in such cases: on one hand hearers frequently cooperate with the speakers when they run into problems, and in particular request further information on the basis of which they are able to resolve the referring act. On the other hand they also "negotiate with themselves" by treating the representations provided by the uttered expression only as approximations, for which on the basis of some reasoning "better candidates" can be found, i.e. candidates which satisfy uniquely some idea in the representation base. A more adequate model of re-identification has to incorporate the former *interactional negotiation mechanisms* as well as the latter *internal negotiation mechanisms*; only on the basis of them can our robustness in establishing the various kinds of re-identification in referential communication be explained.

The development of a model that incorporates the interactional negotiation mechanisms has mainly been based on data from the so called *task-orientated dialogue experiments*, a widely accepted method for studying communication. Such experiments can be characterized in more general terms as follows: two agents, possibly also more agents, are assumed to perform some task which they can only accomplish by communicating with each other. For instance in Clark & Wilkes-Gibbs' (1986) experiments two agents are seated at tables separated by an opaque screen. In front of them they find the same collections of tangram figures arranged in different orderings. The task is that one agent, whose role was chosen beforehand, gets the other agent quickly and accurately to rearrange his figures to match her ordering. They can talk back and forth as much as they wanted. In the Edinburgh map-task dialogues (see Anderson et al. 1991) each of the two participants has a schematic map with various landmarks on it which the other

[4] See for instance Goodman (1986) or Allen (1986) in this regard.

cannot see. The task here is to collaborate to reproduce on one of the maps a route already printed on the other map. One of the agents is designated the instruction giver and the other the instruction follower but no restrictions are placed on what either can say. Similar task-orientated dialogue experiments have been performed by Cohen (1984). What is interesting about these experiments is that they allow one to study quite precisely in what ways and to what extent agents collaborate in communication, in particular in getting the hearers to re-identify perceptually certain objects meant to be referred to by the speakers. On the basis of such experiments first steps have been made in coming up with a collaborative model of re-identification in referential communication, most prominently by Clark (1992) and his colleagues.

The internal negotiation mechanisms that plausibly underly the hearers' re-identification attempts in referential communication have mainly been studied from a computational perspective, for instance by Goodman (1986). He takes up the simple model described above, yet modifies it in the following way: in those cases where the hearer fails to find any idea that satisfies the temporary idea's object-file generated by the speaker's referring expression, he will try to *relax* the set of representations that make up this file in various ways. By relaxing the set of representations Goodman means that certain representations get dropped or are replaced by other representations. On the basis of the resulting modified set then a second search for an idea that satisfies its elements will be initiated. For instance if a speaker uses the definite description 'this red flower' to refer a hearer to some flower in their perceptual context, yet the hearer is unable to re-identify any red flower in this context, then he might come to replace the representation 'is a red flower' by 'is a pink flower'. And on the basis of the modified representation set he can then succeed in establishing the required link-up, namely by re-identifying a pink flower in their perceptual environment which he takes the hearer to be referring to. It seems plausible that such relaxations of the initial representation set are not performed blindly and randomly but in some principled way. Indeed, Goodman assumes that there are different *relaxation rules* which determine the order in which representations get dropped or replaced, and also by which representations they get replaced. Although he goes into some detail in spelling out some rules and in stating a relaxation algorithm, the model he finally comes up with is still very limited. Most importantly, it does not apply to those cases where agents at the beginning of the search process come up with more than one idea which satisfies the initial representation set. For instance imagine the case where the hearer identifies two red flowers in the communication situation. With regard to such cases it makes no sense to relax the initial representation set, rather it has to be

restricted in some way.[5]

These models which aim to capture the interactional as well as internal negotiation mechanisms present important steps towards a more adequate model of the process of re-identification in referential communication. Yet it is probably fair to say that much more empirical and computational research is needed before it can be said that the mechanics of referential communication have been understood more fully. Doing such research is beyond the scope of this work. What I am interested in here is not so much the question of how agents manage to communicate successfully, but in what successful referential communication consists. In the previous chapter it has been argued that an answer to the latter what-question might prove to be relevant in answering the former how-question. Yet on the other hand it is also not implausible that the opposite is the case, namely that the mechanisms which underly successful referential communication have to be taken into account in answering the what-question. Whether this is so and to what extent will be explored in the remaining sections of this chapter.

2. Is Re-Identification Required for Communicative Success?

In the previous section it was pointed out that hearers in referential communication frequently perform some form of re-identification when interpreting the speakers' words. More precisely, a hearer first generates some temporary idea and then he links this idea to some idea already in his possession. It is an interesting question whether such link-ups are in fact required for referring acts to succeed. That is, does the hearer have to link his temporarily created idea with an idea already in his possession (or with a newly acquired perceptual one) in order to be credited with having understood the speaker's referring act? Or would it be sufficient for the success of the referring act that the hearer simply comes up with the temporary idea generated by the use of the speaker's referring expression? Evans (1982) seems to believe that the former is the case when he writes:

> "It is the essential significance of referring expressions that they require link-ups of just these last three kinds [i.e. kinds (a) - (c) stated on page 71 above]". (p. 127)

That is, if a speaker talks to a hearer by using an expression in a referring act, but the hearer upon recognizing his intention fails to link the used expression to an idea already in his possession or to a newly acquired perceptual idea, then according to

[5] It should be said that Goodman (1986) acknowledges this limitation.

Evans the hearer cannot be credited with having understood the speaker's referring act; although as noted above he might retain a new idea. Support for this view derives from ordinary example referring acts. Consider in this regard again the example dialogue discussed in the first chapter:

(2) John (after the party on their way home): This guy with the red shirt and the purple glasses was really amazing.
Mary: Which person do you mean?
John: That friend of Frank who plays in his jazz band.
Mary: I really don't know whom you are talking about.

With the use of the expression 'This guy with the red shirt and the purple glasses' John intends to refer Mary to a certain person, yet Mary obviously fails to understand John's referring act. Nevertheless, John's use of this referring expression will have generated a temporary idea in Mary's cognitive system, namely one that has an object-file with the following representations:

File(i) = {is male, wears purple glasses, was wearing a red shirt at the party, is a friend of Frank, plays in a jazz band with Frank}

Yet what the example seems to show is that coming to entertain a temporary idea with such an object-file is not enough in order to be credited with having understood John's referring act. Mary should have linked her temporary idea to an idea already in her possession, yet since she fails to do so it seems that she also fails to understand John's referring act.

Although the view that success in referential communication requires re-identification has much plausibility, I do not think that it is quite right. For instance it does not hold with regard to those referring acts which are frequently performed by uses of indefinite descriptions. Consider in this regard the use of the indefinite description 'a man' in the following sentence:

(3) I met <u>a man</u> yesterday who plays the trumpet.

As it has been suggested in chapter 2, such referring acts simply serve to introduce to the hearer the object which the speaker has in mind, and as such do they not require any re-identification of the kinds described above. That is, for the hearer to be credited with having understood the speaker it seems that he does not have to link his temporary idea to any other idea in his possession or to a newly introduced perceptual idea, but simply entertain the *right* temporary idea. It is an interesting

question in this context what it means for the hearer's idea to be right in order for him to be credited with having understood the speaker's referring act; later I will come back to this question. Yet the important thing to note here is that there are cases of referring acts where it is not required that the hearer links his temporary idea that has been generated by the speaker's referring expression to some other idea, i.e. perform some re-identification, in order to be credited with having understood the speaker. In the following I will call such referring acts which solely serve to introduce to the hearer the object the speaker has in mind *introductory referring acts*.

What can be said in defense of Evans' claim that success in referring acts requires re-identification is that he intended it to apply only to what might be called *identificatory referring acts*. These referring acts which are commonly performed by uses of proper names, demonstrative terms and by certain pronouns, do not serve to introduce to the hearer the object the speaker has in mind but they ask him to re-identify this object. And thus with regard to such acts it seems plausible that the hearers cannot be credited with having understood them without having performed some re-identification. Yet even here one might wonder whether such re-identifications are always required for their success. Consider for instance the following example: Bill and Mary are at a party where they have just started talking to each other. At some point Mary says to Bill the following while pointing in some direction:

(4) This man is my new logic lecturer!

In using the demonstrative term 'this man' Mary performs an identificatory referring act, because it is her aim to make Bill re-identify a certain perceptually accessible individual as the one she is talking about. Now assume that Bill does not bother to look in the direction Mary is pointing, or that he is in fact blind and thus is unable to re-identify any individual in his visual field at all. And let us further suppose that he is unable to link his temporary idea generated by Mary's use of the referring expression 'this man' in any other way to some idea in his possession. That is, he does not perform any kind of re-identification but simply comes up with a temporary idea *i* which he takes to be grounded in some object and which has something like the following representations in its object file:

File(*i*) = {is Mary's new logic lecturer, is male, is at the party, is standing close to us, is talked about by Mary now}.

Is there not a limited sense in which it can be said that Bill has understood Mary's

referring act? For instance he might continue the conversation by asking:

(5) Which university is he from?

That is, although Bill has not re-identified the person Mary intended him to refer to, he nevertheless seems to have the right person in mind to whom he can refer back in subsequent communicative acts. Thus it seems that there is at least a limited sense in which it can be said that Bill has understood Mary's identificatory referring act.

What the example suggests is that identificatory referring acts can succeed in different respects or up to different degrees. Support for such a view derives from Kronfeld (1990) who distinguishes between the *literal goal* of a referring act and its *discourse purpose*. By the literal goal of a referring act he means the goal of the speaker "to invoke a representation of a particular object in the hearer" and in particular to invoke one "which corresponds to certain features of the noun phrase". For instance if some speaker uses the referring expression 'the grey whale' he intends to invoke in the hearer not just a representation of an object that he, the speaker, is talking about, but one of a grey whale, i.e the descriptive information or meaning encoded in the used expression will be part of the newly generated representation of a particular object. Within the terminology employed above the literal goal of a referring act can be stated as follows:

The Literal Goal of a Referring Act: to make the hearer generate a temporary idea with an object-file that comprises of concepts with the following contents: *'being the object intended to be talked about by the speaker'* and *'being D'*, where the latter gives the descriptive meaning of the used referring expression.

On the other hand by the discourse purpose of an identificatory referring act Kronfeld means the speaker's goal to make the hearer perform some form of "pragmatic identification" or "referent identification", as he call its. He assumes that there are different "identification constraints" operative in different referring acts and that it is the discourse purpose of a particular referring act "to make the hearer understand what identification constraints are operative" and further "to make him apply these constraints" to the newly generated idea with its object file. At this point of the discussion I want to put aside this more specific view regarding the different kinds of referent identifications to be employed in referring acts and simply assume that the discourse purpose of the two kinds of referring acts are given as follows:

Discourse Purpose of an Identificatory Referring Act: to make the hearer perform some re-identification of the object the speaker intends to talk about, in the sense of establishing some link-up with an other idea he already possesses.

Discourse Purpose of an Introductory Referring Act: to make the hearer generate a temporary idea of the object the speaker intends to talk about; here the discourse purpose can be seen as being contained already in the literal goal.

On the basis of distinguishing between the literal goal and the discourse purpose of a referring act one can account for the intuition of there being different aspects or degrees of success. For there can be success or failure in the achievement of both goals. First, the hearer can generate a temporary idea with the right object file, but also fail to come up with any idea or only with one that has the wrong object-file. In the former case the literal goal would be fulfilled; in the latter cases it would not. And secondly, the hearer can come to achieve the discourse purpose of the referring act, for instance by performing some re-identification, but also fail to do so by not managing to link up his temporary idea with any other idea. Now what I want to propose is that for a referring act to succeed in some complete or full sense both the literal goal as well as the discourse purpose have to be fulfilled. That is, the hearer has not only to come generate the right temporary idea, but also the discourse purpose of the referring act has to be achieved. In the case of introductory referring acts success of the literal goal is already sufficient for achieving their discourse purpose. Yet in the case of an identificatory referring act, where it is the speaker's intention to make the hearer perform some re-identification, the hearer has to perform some re-identification in addition to the fulfillment of the literal goal in order to be credited with having understood fully the act. Yet with regard to such referring acts there can also be partial success, namely in sense that only one of the goal gets fulfilled. This seems to have happened in the above example (4) where Mary uses the demonstrative term 'This man' in an identificatory referring act, yet where Bill only comes to generate a new idea without linking it to any other idea, in particular not to a perceptual one. In this case only the literal goal would be fulfilled but not the discourse purpose, which is to make the hearer re-identify the purported referent. Thus there would be a limited degree of communicative success, but not full communicative success.

To sum up, what has been discussed in this section is the view that referring acts require for their success some form of *re-identification*. It has been argued that this holds only for identificatory referring acts and not for the introductory ones, since they simply serve to introduce the object the speaker has in mind to the hearer. That is, only when the speaker intends the hearer to re-identify the object he has in mind,

does the hearer actually have to re-identify it in order to be credited with having fully understood the speaker's words. Yet also with regard to such acts there is a limited sense in which they can be said to succeed when no re-identification gets performed by the hearer. For it seems plausible that there are two kinds of goals which underly the performance of referring acts: first the literal goal, which is to make the hearer generate a certain temporary idea; and secondly the discourse purpose, which in case of introductory referring acts is simply to introduce an idea to the hearer, yet in the case of identificatory referring acts is to make the hearer link his temporary idea with some other idea, i.e. perform some form of re-identification. Now an identificatory referring act can succeed up to some degree, in the sense that only the literal goal gets achieved but not its discourse purpose. Yet the achievement of its discourse purpose would be required for full or complete communicative success. Now the question I want to explore in the following section is whether it matters for the success of a identificatory referring act how its discourse purpose gets achieved, that is how re-identification gets established by the hearer. So far I have only assumed that the hearer has to link up his temporary idea with an idea in his possession in order to be credited with having understood the speaker. The question is whether this necessary link-up must have been come about in a certain way.

3. Does It Matter How Re-Identification Gets Established?

In the first section it has been argued that there are different ways in referential communication in which the hearer can re-identify the object the speaker intends him to refer to. Namely, it can be re-identified as something heard or seen before or as something currently perceived. In the former case the hearer will have linked his temporary idea to some pre-existing idea not currently employed in perception. For instance in understanding uses of proper names hearers usually employ this form of re-identification. Whereas in the latter case the hearer will have linked his temporary idea to an idea currently employed in perception, which might have been acquired just in this situation or at some earlier time. This form of re-identification usually underlies our understanding of demonstrative terms and of certain pronouns in referential communication. For instance if someone says to you 'This man is the new logic lecturer' while pointing at some man, you will under normal conditions perceptually re-identify the object that the speaker means to talk about. Now it is an interesting question what role these different kinds of re-identifications are to play in an account of success in referential communication. Does the hearer, in order to be credited with having understood the speaker's referring act, have to employ a

certain kind of re-identification? And can he employ just any kind of re-identification?

Kronfeld (1990) seems to think that the former is the case, that is certain kinds of re-identification have to be performed by the hearer for a identificatory referring act to succeed. For he assumes that there are different kinds of identification constraints operative in referring acts, and that it is the discourse purpose of a particular referring act to make the hearer understand what identification constraints are operative and further to make him apply these constraints to his newly generated idea. Thus the hearer has not simply to perform some re-identification of the object the speaker intends him to refer to, but he has to perform a certain kind of re-identification, namely one which fulfills the identification constraint operative in the particular referring act.[6] The main identification constraints which Kronfeld assumes to be operative in referring acts correspond to the kinds of re-identifications or link-ups discussed above. For instance he suggests a *perceptual identification constraint* which requires the hearer to re-identify the object talked about as one currently perceived. Further there is a sort of *backward-looking identification constraint* which requires the hearer to link the newly generated idea with a pre-existing "quasi-permanent" one or with a "local" one which has been introduced in the course of the conversation. Yet he also proposes identification constraints which differ from the ones discussed before. Here I want to ignore these extra identification constraints and simply focus on the two main ones. With regard to them I want to explore whether Kronfeld is right in thinking that they not merely present suggestions to the hearer but requirements which have to be fulfilled for the referring act to succeed.

Intuitively, it seems plausible that the hearer has to fulfill the identification constraint operative in a referring act for him to be credited with having understood the act. For instance if someone says to you at a party 'This man is the new logic lecturer' while pointing at some man and you fail to identify the object perceptually, then one would usually be inclined to say that you will not have understood fully the speaker's referring act. Nevertheless, despite its prima facie plausibility I do not think that such a view is right. Imagine for instance that you were blind or for other reasons unable to re-identify perceptually the man pointed at by the speaker. Now it is possible that you come to re-identify the object the speaker means to talk about in some other way, for instance as someone you have had contact with before. For you might know that there is only one man present at the party, let's say Bill Jones,

[6] It should be noted that he states this view not only with regard to identificatory referring acts but also with regard to the introductory ones. Yet in those case the *null identification constraint* is supposed to be operative, "under which success of the literal goal is already sufficient for pragmatic identification". In order to simplify the discussion I will in the following state his proposal as if it only applies to identificatory referring acts.

and on the basis of this knowledge link your temporary idea generated by the speaker's referring expression 'This man' to your Bill Jones idea, who in fact is the one the speaker is pointing at. Now it seems to me that in this case one would say that you have perfectly understood the speaker's referring act, and that despite the fact that you not have fulfilled the identification constraint operative in the referring act but only some other identification constraint. Thus, the fulfillment of the identification constraint operative in a referring act cannot be a necessary condition for its overall success. It should be noted that this not only holds for cases where the speaker intends the hearer to re-identify perceptually the object he has in mind, but also for cases where he intends the hearer to re-identify this object as one he has had contact with before. Imagine for instance that you are at a party to which your distant friend Claire has invited you. At one point Claire says to you:

(6) Mary stares at me all the time

Now imagine that you have never heard of any Mary before and accordingly you are unable to satisfy the identification constraint operative in the referring act, which is to link your temporary Mary idea to some pre-existing Mary idea. Yet as a matter of fact there is a suspicious looking person standing close to you which you re-identify perceptually as the Mary that Claire intends to talk about. Now assume further that she is actually the Mary, Claire intends to talk about. Again, it seems to me that also in this case one would say that you have perfectly understood the speaker's referring. Thus to conclude: there can be communicative success without the hearer fulfilling the identification constraint operative in a referring act. The main requirement for communicative success simply seems to be that the hearer establishes *some* link with the *right* idea.

One might agree with me that Kronfeld's proposal is too strong, yet nevertheless think that more has to be required for communicative success than simply *some* link-up with the *right* idea. For instance authors like Evans (1982) have thought that the hearer, in order to be credited with having understood the speaker, must not only link his temporary idea with the right idea, i.e. come up with the right interpretation, but addition must he *know* that he has come up with the right interpretation. Evans expresses this view as follows:

> "Let us suppose that a speaker utters a sentence containing an expression which has a conventionally recognized information-invoking role, and that it is clear that such a use is intended ... The audience must move beyond this, to the *right* (i.e. intended) interpretation. And if he [the audience] is to be credited with understanding, he must *know* that is is the right interpretation. For it is a fundamental, though insufficiently recognized, point that communication is

essentially a mode of the transmission of knowledge." ('VR', p. 310)

What Evans adheres to here is some sort of *epistemic constraint* on the notion of understanding in referential communication which can be stated as follows: for a hearer to be credited with understanding a speaker's referring act he must, besides coming up with the right interpretation, *know* that it is the right interpretation. That is, the hearer must not only "hook" to the right idea and assume or believe that it is the right one, but he must also be justified in his belief that it is the right one.

I want to object to this epistemic constraint on the notion of understanding in referential communication. To start with, Evans does not present any arguments for it, but rather appeals to common sense here. Yet the problem seems to me that according to common sense there can be understanding in communication without knowledge to the effect that one's interpretation is right. Imagine for instance the case where you learn a new language, let us say Arabic, and you travel in an Arabic country. Suppose further that you ask some people on the street where the tourist office is. Although they will surely have recognized that you are a foreigner, because of your broken Arabic, they answer in rapid speech which you have a hard time following. You will be left with a vague idea of what they have said although you are definitely not sure, in the sense of being justified, that your interpretation is right. Rather you have picked up some words on the basis of which you try to make sense of their speech. In this case one would surely not assume that you know what they have said. Nevertheless, in the case you have come up with the right interpretation, you would be credited with understanding. Or to put it more generally, knowing that one has come up with the right interpretation seems desirable and useful but surely not required in order to be credited with understanding the words of speakers in communication.

Although Evans' epistemic constraint on the notion understanding or communicative success turns out not to be plausible, one might think that some weaker yet similar constraint is right, namely one which requires the hearer to have at least some *reasonable confidence* that he has come up with the right interpretation. That is, although the hearer must not be fully justified in thinking that he has established a link with the right idea he must have some reasons to think that he has done so. What motivates this constraint is the intuition that understanding or communicative success cannot be the product of pure *guess work*. That is, someone cannot be credited with having understood a speaker's identificatory referring act if he simply guesses the idea which he ought to link his temporary idea to. Now I agree that successful communication usually is not the product of pure guess work. In fact, if this were the case then communication would be quite useless since in most cases it would fail. Yet what I disagree about

is that this fact should be made a condition for communicative success. Rather it seems to me an important feature of communication that it proceeds in some rational and reasonable way. This allows us to rely on it. Yet I think that our notion of communicative success is better thought of as being independent of these considerations. Consider in this regard again the above example where you travel in an Arabic country. In interpreting what the natives say you might sometimes in fact engage in some form of guess work, simply because your knowledge of the language is so bad. Yet in those cases where you guess the right interpretation I see no reason why you should not be credited with having understood what they have said. The problem simply seems to be that in these cases you will be reluctant to rely on your interpretation in subsequent actions. For you know that there is a high risk of being wrong, although you might be right. But sometimes you might have to rely even on interpretations which have been generated in some arbitrary way.

Let me sum up the discussion of this section: what has been explored first is whether hearers, in order to be credited with having understood the speaker's identificatory referring acts, not only have to perform *some* re-identification as suggested in the previous section, but have to perform certain kinds of re-identifications, namely those that are in accordance with the identification constraints operative in the referring acts. Despite its prima facie plausibility I have argued that this view adhered to by Kronfeld (1990) is wrong. For hearers can understand speakers' identificatory referring acts even if they establish link-ups which are not in accordance with the identification constraints operative in these acts. The *main requirement* for communicative success simply seems to be that the hearer establishes some link with *the right idea.* Yet it might be thought that the hearer must at least know or have reasonable confidence that they have established a link with the right idea. This view has also shown to be wrong, or at least as not very plausible. The central condition for communicative success in referential communication simply seems to be that the hearer comes to entertain the right idea. Now in the remaining chapters of this work I will try to spell out in more detail what it could mean for the hearer's idea to be the right one. Intuitively it seem that it simply must correspond with the speaker's underlying idea in some way. But in which way must they correspond? And is there only one correspondence relation or are there different ones depending on the kind of referring act performed by the speaker?

As I have argued in the previous chapter, it seems plausible that aiming and grounded referring acts have different success conditions. Aiming referring acts are those where the speaker intends to invoke a certain aiming idea in his audience, i.e. one which is merely taken to be aiming at some object in virtue of some reference-fixing concept. Such referring acts are prototypically performed by attributive uses

of definite descriptions, i.e. in attributively using a definite description one entertains an idea which one takes not be grounded in any object but merely aiming at some object, and one uses the description to relate the hearer to a corresponding aiming idea. For instance in the case where one uses the description 'the murderer of Smith' attributively, one entertains an aiming idea which has 'is the murderer of Smith' as its reference-fixing concept. With regard to aiming referring acts it seems plausible that the hearer's idea corresponds to the speaker's one if and only if it is also an aiming idea and it is based on the same reference-fixing concept, or more precisely on a reference-fixing concept with the *same reference-fixing content* as the speaker's reference-fixing concept. For instance, for a hearer to be credited with having understood the attributive use of 'the murderer of Smith' he must come to entertain an idea which he takes to be merely aiming at some object, namely at that object which is the one and only one murderer of Smith. It should be noted that this view holds true irrespective of whether the speaker performs an introductory or an identificatory referring act.

On the other hand, grounded referring acts are those where the hearer intends to invoke a certain grounded idea, i.e. an idea that is taken to be derived from some contact with an object. Such referring acts are typically performed by uses of proper names, by demonstrative terms and certain pronouns and by referential uses of definite descriptions.With regard to these referring acts the correspondence relation will be a different one. First of all it seems that in such cases the hearer has not to entertain an aiming idea but a grounded idea. But that is clearly not enough: he also has to entertain *the right* grounded idea. But what will be the right grounded idea? Intuitively it seems that it simply must be *of the same object* as the speaker's underlying grounded idea. For instance, if in the above party example one came to re-identify the wrong person, that is come to establish a link with an idea that is not of Mary but of a different woman, one would not be credited with having understood Claire's referring act. Thus with regard to these grounded referring acts it seems that it is basically *sameness in mental reference* which accounts for the relevant correspondence relation and not *sameness in reference-fixing content.*

Throughout this work I will mainly focus on grounded referring acts when I discuss the question of communicative success. The reasons for focusing on them are two-fold: on one hand they are considered by many authors as the genuine referring acts, for instance by Evans (1982) and Blackburn (1984). But secondly and more importantly, accounting for their success conditions seems much more difficult and challenging than accounting for those of aiming referring acts. For as we will see in the following chapters, the claim that the relevant correspondence relation simply consists in sameness in reference cannot be right. One problem is that such acts can fail to succeed although speaker and hearer entertain ideas that are

of the same object. Yet before I can discuss the prospects of the proposed correspondence relation it will first be necessary to make the conditions for mental reference of our grounded ideas more precise. That is, under what conditions do such ideas refer to particular objects? With regard to aiming ideas this question has an easy answer: an aiming idea is of that object which uniquely fulfills its reference-fixing concept. The question is whether something similar holds true for our grounded ideas or whether here a different story has to be told, as assumed by many authors. This question will be discussed in the following chapter. Then in chapter 5 I will turn back to the question of success in referential communication. In discussing these questions, in particular the latter, I will make use of the following simplifying assumptions: First, I will speak of ideas and thereby mean grounded ideas if not stated otherwise. Secondly, I will speak of referring acts and thereby mean grounded referring acts if not stated otherwise. And finally, in discussing the question of communicative success I will leave the question of re-identification aside, and simply assume that re-identification, whenever it is required, is performed by the hearer. Thus, when I ask in the following what the necessary and sufficient conditions for success in referential communication are, it means the following: under which conditions can a hearer, who has already performed the required re-identification, be credited with having understood a grounded referring act?

4

Accounting for Mental Reference

Many authors have assumed that subjects can only understand their referring acts if they come to entertain ideas or thoughts which refer to the same objects in the world. Clearly, for evaluating the descriptive and explanatory adequacy of such *object-dependent* accounts of success in referential communication it has to be made more precise what it is for an idea or a thought to refer to an object in the world. For instance what makes my thought that Bill Clinton will win the next election about the individual Bill Clinton or my thought that Schubert was a wonderful composer refer to Franz Schubert? There has been an ongoing debate whether such cases of *mental reference*, as they have been called, should be accounted for by appeal to some *satisfactional* factors, by appeal to some *causal* ones or possibly by appeal to both kinds of factors.[1] Accounts of mental reference which appeal to satisfactional factors and which I will call *satisfactional accounts* assume that an idea or thought will be of that object in the world which in some way gets distinguished or picked out by it. On the other hand accounts of mental reference which appeal to causal factors and which I will call *causal accounts* suppose that a thought will be of that object which has played a certain causal role in its production. Hybrid accounts simply suggest to combine these elements in some way.

The opponents in this debate basically apply the central ideas of the two well-known theories of reference for proper names to the phenomenon of mental reference. These are the *descriptive account* commonly associated with the work of Frege (1892) and later endorsed by Searle (1958) and the *causal-historical account*

[1] The term 'mental reference' has been employed by Fitch (1990). Kvart (1994) uses the term 'thinker reference'.

as developed by Kripke (1972) and Donnellan (1974) and later by Devitt (1981). According to descriptive accounts a descriptive condition, or a cluster of them, is assumed to be associated with a proper name and the name refers to that object which uniquely satisfies the respective descriptive condition. For instance the proper name 'Bill Clinton' refers to the individual Bill Clinton because this individual uniquely satisfies the descriptive condition 'is the president of the US in 1996' which is associated with that name. According to causal accounts a proper name refers to that object which has somehow been causally responsible for its introduction into the linguistic practice and to which one is related via a causal-historical chain. Evans (1973) has proposed a sort of *hybrid account* which combines both elements in a theory of reference for proper names.

In this chapter the corresponding accounts of *mental reference* will be discussed in more detail. In the first section I will turn to the satisfactional ones. Some of the central problems many have seen with them will be considered and the prospects of some lines of defense will be explored. It will be argued that many problems remain unsolved, a fact which undermines the satisfactional accounts. Then in the second section causal accounts of mental reference will be discussed. Although they allow one to circumvent the problems faced by satisfactional accounts other problems arise which undermine their prospects as well. In the final section the focus will be on hybrid theories which by combining satisfactional with causal elements try to overcome those problems. Here I will discuss Evans' hybrid account and Devitt and Sterelny's one, yet it will be shown that they both fail. The former makes mental reference too much dependent on satisfactional elements whereas the latter leaves it too little. What will be proposed as an alternative is an account according to which thinking of an object will be *a matter of degree*. Evans and Devitt & Sterelny's proposals can be seen as providing the conditions for the highest and the lowest degrees of thinking of an object respectively, yet there are degrees in between.

1. Satisfactional Accounts of Mental Reference

The central claim of satisfactional accounts is that an idea or a thought will be of that object which uniquely gets picked out by a satisfaction condition associated with it. Such accounts differ in regard to how they conceive of these satisfaction conditions. According to the theory of ideas developed in the previous chapter, such a satisfaction condition will be given by what has been called the idea's satisfaction set, which comprises of those properties that the representations in the idea's object-file are of or about. Consider for instance my Franz-Schubert idea.

The object-file associated with it at some time might yield something like the following satisfaction set:

Sat(i) = {*being a composer of the romantic period, being called 'Franz Schubert', being the composer of a piece called 'Die Wintereise', having died of Syphilis*}

Now, this idea will be of Franz Schubert since he is the object in the world which uniquely satisfies these properties. That is Franz Schubert is that individual of whom all the properties in the satisfaction set are true and he is the only one for which this holds.[2] More generally stated, an idea is of an object o at some time T if and only if o gets uniquely picked out by all the properties that make up the idea's satisfaction set.

Unfortunately, as it stands this version of a satisfactional account seems far too strong. The problem is that it does not allow *for error* in the object files associated with our ideas. That is, whenever an idea's object file contains a representation with a content that is not true of an object o then o cannot be the referent of the idea since it would not uniquely satisfy the idea's overall satisfaction set. Now this result strikes one as counterintuitive. Imagine for instance that Schubert did not die of Syphilis but of some other disease. In such a case I would not think of Schubert when entertaining my Schubert idea with the above satisfaction set although the other properties in that set would still pick out Schubert. What has been proposed in the light of this *problem of error* as it has been called is that not necessarily all properties of an idea's satisfaction set have to pick out uniquely an object for it to qualify as the referent.[3] Different versions of such a more liberal satisfactional account of mental reference are conceivable. For instance one might argue that the object has only to satisfy *most* or a *large number* of properties or only those which are *high in weight*, whereby I mean representations which are considered by the agent who possesses them to be more germane to the evaluation of the idea's of-ness than others. For instance it might be argued that the representation with the content *having died of Syphilis* which is part of my Schubert-idea is lower in weight than the one with the content *being the composer of a piece called 'Die Winterreise'*.

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[2] It should be noted that this account of mental reference rests on an account of what it is for our conceptual and iconic representations to be of properties and relations in the world. The question is what accounts for their of-ness, that is for the fact that they have certain properties or relations as contents? Although this certainly presents a problem for such accounts it is not the reason why many have taken them to be inadequate. Throughout this work it will be assumed that an answer to this question has already been given.

[3] Devitt & Sterelny (1987) use this term when discussing the same problem as it occurs under descriptional theories of reference for names.

Although such a modified satisfactional account obviously fares better than the initial one it still faces severe problems in the light of which it has been opposed strongly over the last decade. In particularly it has been argued that it cannot account for cases of mental reference of the following kinds:

(a) Cases where one intuitively has an idea of an object *o* yet the idea does not satisfy *o* nor any other object;

(b) Cases where one intuitively has an idea of an object *o* yet the idea does not uniquely satisfy *o* but another object *o'*;

(c) Cases where one intuitively has an idea which is of no object although the idea satisfies uniquely an object *o*.[4]

Regarding (a) consider for instance the example where you have seen a person *S* many years ago and where you later remember that person. Now it might be the case that at this point you do not possess any information or knowledge which uniquely picks out *S*, nevertheless it seems still possible for you to think of *S*. For instance I remember encounters with some children I met during my childhood, yet there are no facts or properties that I could cite that uniquely pick out those children. Nevertheless I seem to be able to think of them whenever I have memories of that time. The problem is that the above account of mental reference requires agents to possess representations which they sometimes do not have because they are too *ignorant*; following Devitt and Sterelny (1987) I will call this the *problem of ignorance*.

Regarding (b) consider the case where you have an idea of a person *S* whom you have met some time ago, let us assume that he is called 'Schwarz'. You remember that person as being called 'Schwarz', as being a novelist, as being the author of 'NN', etc. All these properties are in fact true of Schwarz, yet there is a wrong property you associate with your Schwarz-idea. For instance you think of Schwarz as being born in Köln although he was born is Mölln. Imagine further that there is another person *S'* who not only satisfies the representations you possess that hold of Schwarz but in addition also the wrong ones. That is *S'* is also called Schwarz, he is a novelist, etc. Then according to the above satisfactional account your idea would be of *S'* and not of *S*, or at best of both persons, although one is inclined to think that it is of *S*.

Finally regarding (c) consider the case of a journalist or a novelist who as part of

[4] See Fitch (1990) for a nice discussion of those problems.

writing a story invents a certain character, let us say a murderer. He ascribes certain properties to "him", for instance that he was born in Frankfurt in April 1927, that his name was 'Karl Menkwitz' and that he worked as a builder after the war. Now it might be the case that there was really somebody with that name who fits uniquely most or even all properties you associate with him through your imagined idea. Obviously, it would be wrong to say that the novelist has been thinking of that person when writing the story, for he simply has made it up. Yet according to the satisfactional theories of mental reference he would think of that man since he is the one who uniquely gets picked out by his underlying idea.

In the light of these problems the so called *causal accounts* of mental reference have been proposed which are based on the idea that a thought is of that object which has been causally responsible in its production. Before I now turn to accounts of this type let me first point out what can be and also has been said in defense of the satisfactional accounts; because it would be unfair to dismiss them so quickly, and indeed I think that they can be defended up to a certain degree. To start with, those cases of type (c) where a novelist or journalist has acquired an idea by imagination which by accident satisfies a real object can be handled if one acknowledges that such an idea will probably have a representation with the content *not being existent* or *not being a real object* as part of its satisfaction set, and probably it will also be high in weight in the sense explained above. And since no existing object in the world will satisfy this property, no object will get picked out by the whole satisfaction set associated with the idea of which this property is part.[5] Thus the novelist who has invented a figure called 'Karl Menkewitz' will not think of any real person with that name when entertaining his respective Menkewitz-idea since that person qua existing object does not uniquely satisfy the idea's satisfaction set. Now one might object that although this holds for the novelist who has imagined this alleged object called 'Karl Menkwitz' it does not necessarily hold for his readers who might take him to talk about a real person. For they might not think of this alleged guy as being not existent, but as being existent. Accordingly their ideas will pick out the real Karl Menkwitz and thus the above problem remains. Nevertheless, also here it seems that there will be some representations associated with their respective Menkewitz-ideas which rule out this reference. This will be representations with the following content:

(C1) *being the object of which the person was thinking of from whom my idea causally derives from.*

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[5] Obviously, I am assuming here that some sense can be made of the idea that *being-existent* is a property.

And since the person from whom the idea derives, for instance the novelist, was thinking of no object, the reader will not come to think of any object either. Thus it seems that cases of type (c) which allegedly pose a problem for a satisfactional account of mental reference can be handled quite well.

One might think that in a similar way cases of type (a) can be handled, where someone has an idea of an object although it seems that there are no representations associated with it which pick it out uniquely. For here it might also be argued that if the idea originates in communication one associates with it a representation with the above content (C1), and if it originates in perception one with the following content:

(C2) *being the object which caused the perception that led to the introduction of the idea.*

And since these representations uniquely pick out an object also in those alleged cases of ignorance, the problem with them vanishes. Thus when I remember some people I have met a long time ago or I have heard of from others I will think of some objects even if there is not much other distinctive information I associate with the entertained idea. Likewise with regard to cases of type (b), where one intuitively has an idea of a person *S* yet the idea does not uniquely satisfy *S* but another object *S'* a similar solution might be offered. For it might be argued that here as well the agent associates with his underlying idea representations with the contents (C1) or (C2) which will pick out *S* and not *S'*.

Although this line of defense orginally developed by Searle (1984, 1991) seems to have some initial plausibility, I do not think that it works. First, with regard to children it does not seem very plausible that they will come to have ideas with representations that concern what causally produced their ideas. Such representations seem to be too complicated and sophisticated.[6] The general problem with this line of defense of the satisfactional accounts seems to me to be that it tries to turn the causal condition for mental reference, which the alternative causal accounts propose, into a satisfaction condition. That move seems quite artificial and ad hoc. Moreover it seems entirely against the spirit of satisfactional accounts of mental reference. Thus I think it is fair to say that there are certain cases, namely cases (a) - (c) above, which purely satisfactional accounts cannot handle and hence the search for an alternative account of mental reference is justified. What has been proposed are the so called causal accounts to which I will turn in the following section.

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[6] This criticism has been levelled by Burge (1991) against Searle's (1983) defense of a satisfactional account of singular thoughts which adheres to such satisfaction conditions.

2. Causal Accounts of Mental Reference

Causal accounts of mental reference assume that a thought or an idea will be of that object which has played a causal role in its production.[7] The central task faced by anyone in favor of such an account is to specify in more detail the causal relation that is supposed to determine the of-ness of our ideas and thoughts. Commonly it is assumed that the following subtasks arise in this regard: first to account for what has been called *reference groundings*, and secondly for *reference borrowings*.[8] For what the causal theorists suppose is that our ideas or thoughts are of some objects either in virtue of being causally related to them in a direct way, which is usually taken to be perception, or in virtue of being causally related to them indirectly, namely via the ideas or thoughts of some other agents which have been causally responsible in the production of our ideas in the course of communication. In this latter case mental reference is in a certain sense borrowed from other agents. Consider the following examples which should illustrate this distinction: you are currently thinking of the text you are holding in your hand because you are in a direct way causally related to it, namely through perception. Here mental reference is grounded in the object and not borrowed from other agents. Yet when you think of Caesar, the Roman emperor, there is no such direct perceptual causal relation but a more indirect one which involves other agents' ideas and thoughts through which you are linked in a mediated way to Caesar. Some of them had been in direct perceptual contact with Caesar yet most of them have acquired their Caesar ideas in the course of communication, namely in the sense that other agents have informed them about Caesar. Their ideas are then of Caesar because mental reference is in a sense "borrowed" from the ideas of those other agents who informed them about Caesar. That is they refer to Caesar because they are part of some chain of causally related ideas or thoughts which are ultimately grounded in Caesar.

The question is how one can make this causal account of mental reference more precise, in particular, how one can account for reference groundings and reference borrowings. A simple proposal which comes to mind here is to define the of-ness of an idea recursively with respect to the different kinds of introductions it can have. Remember, in chapter 2 it was assumed that an idea can be introduced in three different ways, namely by perception, by imagination and by communication. Accordingly, an idea will be either perception-based, imagination-based or communication-based. Now what might seem plausible is to define the of-ness of an idea with regard to these different kinds of introductions as follows:

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[7] Authors like Bach (1987), Devitt (1981), Devitt & Sterelny (1987), Fitch (1990), Kvart (1994) or Recanati (1993) adhere to accounts of this kind.

[8] See Devitt & Sterelny (1987) or Miller (1992) for this terminology.

(a) An idea which has originated in perception is of the object which one has been causally related to in perception and which lead to its introduction, and if there was none, then the idea is of no object.
(b) An idea which has originated in imagination is of no object.
(c) An idea *i* which has originated in communication is of that object which its base-idea was of, that is the speaker's underlying idea *i'* in which *i* has originated in communication; and if there was no base-idea or if it was of no object then also *i* will be of no object.

Clauses (a) and (b) can be seen as specifying the conditions for reference groundings, whereas (c) is concerned with reference borrowings. Clause (c) simply defines the of-ness of a communication-based idea recursively in terms of the of-ness of its underlying base idea. Clauses (a) and (b) on the other hand figure as base-clauses in the recursive definition.

Given this simple causal account of mental reference, the above problems with the satisfactional account vanish. First, it can account for those cases where one has an idea of an object which does not satisfy the idea. For instance, in the example where you have seen a child *S* many years ago you will later be able to think of *S* irrespective of whether you possess any information or knowledge which uniquely picks out *S*. For what makes you think of *S* is that you entertain an idea that causally has originated in a perceptual encounter with *S*, that is clause (a) explains mental reference here. Secondly, the above proposal can account for cases where one has an idea of an object which satisfies another object. Consider again the case where you have an idea of a person *S* whom you have met some time ago, yet there is some wrong information contained in this idea, and where there is an other person *S'* who not only satisfies the information you possess which is true of *S* but also the false information. Now according to the proposal, you would nevertheless think of *S* since your idea perceptually has originated in him; this case also gets accounted for by clause (a) above. And finally, the analysis handles those empty cases where one has an idea which is of no object yet which uniquely satisfies an object. For instance the journalist or novelist, who as part of writing a story invents a certain character, will not think of an object even if his underlying idea uniquely picks out a certain object. For his idea has originated in imagination and as such it is of no object. And also his readers will think of no object when entertaining their respective ideas which they have acquired in reading the story. Because as derived ideas they will be of the object their base-ideas were of, which will be of no object.

Yet despite these obvious advantages over the satisfactional account of mental reference the above causal account also faces some severe problems. Let me first

turn to a minor one which can be solved by modifying the above account and then discuss a more damaging one which in fact will point to a sort of hybrid account of mental reference which combines causal with satisfactional elements. The minor problem is given by examples where one seems to have an idea of a certain object, although the idea originates in another object. Consider for instance the following case: Michael Jackson is in town to give a concert. In order to make his fans happy he has hired a double who is giving interviews and is talking to locals. John is one of the locals, yet he has never heard of Michael Jackson nor has he had any previous perceptual contact with him. On his way to work he runs into a crowd and suddenly there is this funny looking guy approaching him, Michael Jackson's double, who says:

(1) Hi, I am Michael Jackson, are you coming to my concert tonight?

Everybody is screaming around him which makes it that John, a very shy person, turns around without answering the question and quickly leaves the scene. At work he then talks to his younger colleague Mary about this incident, who informs him that he has just met one of the most famous pop musicians of modern times. On the next day John reads in the papers about Michael Jackson's concert and learns more funny things about him. In fact, in light of what he has read and heard about Michael Jackson, he comes to think that this guy is really very strange. Now the problem for the above version of the causal theory of mental reference is that he would not think of Michael Jackson in this case but only of his double because he is the one his idea originates from; for his idea originated in the perception of the Michael Jackson double. Yet this seems implausible, for although he acquired his Michael Jackson idea by running into his double, we are inclined to think that the idea at this later stage is really of or about Michael Jackson. To put it in more general terms, the problem with the above causal theory of mental reference is that it does not take into account the way in which an idea *develops* through its cognitive life. That is, what an idea refers to is entirely dependent on how it originates and not on how it later develops and gets used.

Fortunately, there seems to be an attractive way to fix this problem, namely to appeal to an idea's object file. To remind you, the object-file associated with an idea contains those representations which are assumed to hold of the alleged referent of the idea. In terms of these representations the agent thinks of the idea's purported referent. Some of them have been introduced into the idea's object file when the idea came into existence, yet most of them have probably been introduced later on when the idea has been "re-used" in acts of re-identification. In the above Michael Jackson example some representations have been introduced when John acquired

his Michael-Jackson idea, for instance some iconic representation or some conceptual ones with the content *being called 'Michael Jackson'*. Later on, when he "re-used" this idea in acts of re-identification, more representations were added to the idea's object file, for instance those with the following contents: *being a famous pop musician, having undergone much cosmetic surgery, having bleached the color of his skin,* ... In regard to how these representations have been introduced into the idea's object files, these representations can also be seen as being causally derived from an object. For instance the iconic representation first introduced will be causally derived from Michael Jackson's double, yet the conceptual representation with the content *being a famous pop musician* will be derived from Michael Jackson himself for reason stated below. Now these considerations give rise to the following complex proposal of mental reference:

Complex Causal Account: An idea i is (at some time T) of an object o if and only if o is the object from which the representations that make up i's object-file (at T) causally derive from, or from which at least most of these representations or those high in weight derive from.

Given this account an agent can possess an idea which has originated in a certain object, but the respective object file might have many representations as elements which causally derive from some other object(s). This is exactly the case in the above Michael Jackson example where John's idea is grounded in Michael Jackson's double but most representations in the file causally derive from Michael Jackson. Then John will think of Michael Jackson and not of his double, or at least he will think of both individuals.

Clearly, in order to make this proposal more precise we need to know under which conditions a representation as part of an idea's object file is causally derived from a certain object. What I want to suggest, is to make this "of-ness" of a representation r dependent on how r has been introduced into the idea's object-file. I recognize at least the following four kinds of introduction:

(a) introduction based on perception,
(b) introduction based on imagination,
(c) introduction based on reasoning or inference,
(d) introduction based on communication.

Cases (a), (b) and (d) are familiar from the discussions above. By (c) I mean cases in which a representation is introduced into an idea's object file on the basis of reasoning, where some other representations which are already part of the file

figure as input into the reasoning or the inference process. For instance if a representation with the content *being a bachelor* is part of an idea's object file, then on the basis of an inference one might also add the representation with the content *being male*. Now the of-ness of a representation as part of an object-file can be defined relative to these four ways of introduction as follows:

(a) If a representation has been added to the object file by perception, then it will be of that object which the object file has been causally related to in perception, and if it has been related to no object, then the representation will be of no object;

(b) If a representation has been added to the object-file by imagination, then it will be of no object.

(c) If a representation *r* has been added to the object-file by an inference which employed certain other representations, then *r* will be of the object(s) which these other representations are of.

(d) If a representation has been added to the object-file in the course of communicating with someone, then it will be of the object(s) of which the underlying representation in the speaker's entertained object file was (were) of, and if there was no such underlying representation or if it was of no object(s), then the hearer's acquired representation will also be of no object(s).

Under this analysis it can be explained now why, John in the above example, was thinking of Michael Jackson and not of his double. For what seems plausible is that he would have considered certain conceptual representations to be important, for instance the complex representations with the content *being called 'Michael Jackson'* and *being a famous pop musician*, both of which he acquired in communication, the first one in communicating with Michael Jackson's double and the second one in communicating with his colleague. Both will causally derive from Michael Jackson, and not from his double, which explains our intuition why John's idea is of Michael Jackson.

Two important features of this more complex causal account of mental reference are the following: first, an idea can change its reference in the course of its "cognitive life". This might happen because certain initially acquired representations which are of an object *o* might be replaced later on by other newly acquired representations which are of another object *o'*. This seems to have happened in the case of John. When he first met this Michael Jackson double on the street he was in fact thinking of the double because the representations he possessed at this point,

mainly iconic ones, were of him. Yet later certain new representations were introduced into his object-file, namely in the course of communicating with his friend about Michael Jackson and in the course of reading in the papers about him. These representations were indeed of Michael Jackson and thus it might be said that John later came to think of him, at least given that these later acquired representations are the important ones. The second feature of this account is that an agent's idea can be of two or more objects, that is reference can be "*divided*", as some have called it.[9] This will be the case when the representations that make up an idea's object file are of two or more objects and not just of one. In fact, it might be said that John in the above example was thinking for some time of two objects, namely of Michael Jackson and of his double because he possessed representations which were of both individuals.

Although this complex causal account of mental reference seems to work much better than the initial one it nevertheless fails or at least it faces severe problems. To start with, it does not give the right account of reference grounding since it runs the danger of making certain perception-based ideas of some objects which should have no reference. For instance when someone sees a Fata Mogana of a lake in the desert by entertaining an perception-based idea *i* then one is inclined to say that *i* is of no object although the representation with the content *being a lake* that is associated with *i* might be caused by an object, for instance by a strip of sand that reflects the light in a certain way. The problem is, as Sterelny (1990) points out, that most of our perception-based ideas will causally derive from some objects yet these objects will not qualify in all cases as the objects they are intuitively of. Thus it seems that the conditions which the above account provides for reference groundings are at best necessary, but not sufficient ones. The same seems to hold for the case of reference borrowings. Imagine for instance that someone is saying at a party the following:

(2) Köln is a really nice German city.

Now because there was much noise at the party you might have understood that person saying:

(3) Mölln is a really nice German city.

In the light of what he has said you come to form a new idea which originates in communication. Let us assume that it has only representations with the following contents as constituents in its object-file:

9 See Kvart (1989) for this term.

Sat(i) = {*being a city, being nice, being located in Germany, being called 'Mölln'*}

According to the above account of mental reference, you would think of the city Köln when entertaining this idea since the representations with these contents all causally derive from Köln, at least as long as the speaker's underlying representations causally derive from Köln, which for the sake of the argument will be assumed. Yet, as a matter of fact, there is another city in Germany which is called 'Mölln'. Now it seems that in some sense your idea is more related to this city than to Köln since that is the one you would pick out when looking through a travel guide or when talking to people at the German tourist board. At least I would be reluctant to say that you are thinking of Köln when entertaining such an idea, rather I would say that you think of no object at all. In the light of these and similar examples many have argued that a causal account of mental reference has to be augmented by some satisfactional factors, that is, what we need is some sort of hybrid account. Such accounts shall be discussed in the following section.

3. Hybrids Accounts of Mental Reference

The most radical hybrid account has been proposed by Evans (1973, 1982) who simply combines the mental reference condition yielded by a satisfactional account with that yielded by a causal one. He writes in this regard:

> "The notion of an information-based particular-thought involves a duality of factors: on one hand, the subject's possession of information derived from an object, which he considers as germane to the evaluation and appreciation of the thought; and on the other hand the subject's satisfaction of the requirement imposed by Russell's principle - his identification of the object which his thought concerns." (Evans 1982, p. 138)

Translated into the terminology employed here, this means, an agent's idea i is of an object o at some time T if and only if: first, o is the causal source of the representations that make up i's object file at T, and secondly, o uniquely satisfies these representations (or most of them or the ones high in weight) in the sense of getting picked out by the properties they are of. Note that according to this hybrid account of mental reference an idea can fail to be of an object in at least the following three senses:

(a) it neither derives from an object nor does it satisfy an object,
(b) it derives from an object but satisfies no object or a different one,

(c) it derives from no object but satisfies one.

In all these cases the respective idea will be of no object and, accordingly, one will not entertain a singular thought about an object. It follows that in the Köln-Mölln example the agent would neither think of Köln, since this city does not get picked out by his respective idea, nor think of Mölln, since this city does not serve as the idea's causal source. Thus Evans' hybrid account seems far better than the above purely causal one.

Nevertheless many have critized Evans' account of mental reference over the last years.[10] Bach (1987) for instance writes in this regard:

> "The trouble with Evans' view ... is that what he regards as necessary conditions for using an Idea to think about an object are too strong and are, in fact, necessary conditions for something more. As many of our examples have suggested, one can think of an object without being able to identify it ... you can think of an object you have perceived before merely by remembering it. That you remember something, hence your ability to think of it, does not require that how you remember it distinguishes it from other things ..." (p. 44)

Essentially I agree with Bach here. By making the above satisfactional account a necessary condition for mental reference, Evans requires too much from agents for being credited with thoughts about objects. He motivates his extensive appeal to those satisfactional elements by what he calls Russell's principle. As Evans states it, the principle is "that a subject cannot make a judgement about something unless he knows which object his subject is about" (p. 89). And further, he supposes that "the knowledge which it requires is what might be called *discriminating knowledge*: the subject must have a capacity to distinguish the object of his judgement from all other things" (p. 89). Now it is not clear what really justifies Russell's principle, and in fact Evans acknowledges this when he says that the principle "stands in need of a theoretical defense" (p. 91). As many like Devitt (1985) have pointed out, he does not provide such defense and thus, in the light of those conflicting examples, the principle should better not be endorsed.[11] What some critics, like Bach, have suggested is that Russell's principle should rather be seen as stating a condition for the notion of "knowing what one is thinking of" but not for the notion of "thinking of" or "mental reference".

Yet even if Evans' account is too strong it seems that some appeal to satisfactional factors has to be made in order to account for those examples which brought down the pure causal accounts stated above. A proposal that is much closer to a pure

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10 See Bach (1982), Devitt (1985) or Fitch (1990) in this regard.

11 See for instance Devitt (1985) for a criticism of Evans' use of what he calls Russell's principle.

causal account of mental reference than Evans' can be extracted from Devitt and Sterelny (1987). In the light of problems similar to the one with the Fata Mogana of a lake, which concern perceptual reference groundings, Devitt and Sterelny acknowledge that some satisfactional factors have to be brought into play. Yet instead of requiring of an agent to be able to identify the perceived object, they only require that some of the "general categorical terms" which are part of the agent's underlying conception of the perceived object are true of it. For instance in the above Fata Mogana example, the agent would not think of an object because he associated with his underlying idea a general representation with the content *being a lake*, which in the described perceptual situation is not satisfied by any of the objects the agent is causally related to. Devitt and Sterelny (1987) sum up their approach as follows:

> "Clearly, we have moved some distance back toward the description theories rejection earlier [here called satisfactional theories]. However, the extent of the move should not be exaggerated. First, the association of a general categorial term does not amount to *identifying* knowledge. Second, our move is a modification of the causal theory of grounding. The causal theory of reference borrowing remains unchanged; borrowers do not have to associate the correct categorical term." (p. 65)[12]

The problem with this proposal for mental reference is that it seems not to require enough from agents for them to be credited with entertaining ideas or thoughts of objects. For cases like the Köln-Mölln example, which are cases of reference borrowings and not of reference groundings, cannot be dealt with. That is, the agent here would think of Köln even if the representations he entertains pick out a different city, namely Mölln. As has already been pointed out above, this prediction seems problematic, and I think that in such cases of reference borrowings appeal to some other non-causal factors has to be made as well. Yet note, applying Devitt and Sterelny's satisfaction condition for cases of reference groundings to such cases of reference borrowing will not be of much help. For in the Köln/Mölln example the agent possesses a general representation which is true of Köln, namely the one with the content *being a city*, and thus the respective satisfactional condition would be fulfilled and accordingly the agent should have an idea of Köln. Nevertheless, I think that we are reluctant to say that he is thinking of Köln, given that the agent possesses some other representation(s) which pick out a different city. Thus Devitt & Sterelny's proposal seems too weak, even if it were to be modified in such a way.

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12 It should be noted that their discussion of theories of reference is mainly concerned here with the reference of names. Yet in later writing by them or others those points have also been applied to the problem of mental reference; see Sterelny (1990) in this regard.

Devitt & Sterelny might reply in regard to this criticism that in cases like the Köln/Mölln example, the respective agent merely does not know what he is thinking of. Accordingly the problem is not that the agent does not think of Köln; thus such examples do not undermine their hybrid account of mental reference. Despite its initial plausibility I do not find this line of reasoning convincing. For by the same reasoning it might be argued that in the Fata Mogana example one is thinking of a strip of sand, and that we are only inclined to suppose otherwise because we confuse the notions "thinking of something" and "knowing what one is thinking of". Yet in these cases it is quite clear that we do not want to say that the agent has an idea of a strip of sand. But the same can be said with regard to the Köln/Mölln example, and thus an explanation which does not apply in the former kind of case cannot be applied in those latter cases of reference borrowings either.

Well, could Devitt and Sterelny not simply object by saying that they have different intuitions and that the agent in the example is thinking of Köln and not of Mölln or of no object? In fact, subjects I presented the example to have had diverging intuitions here; some thought that the agent would think of Köln, other thought the opposite and some were even inclined to say that the agent would think of no object. This raises an interesting philosophical question, namely the question what drives us to think that someone's idea is of this or that object. So far we have simply taken our intuitions as face value or as data which have to be accounted for. But now we seem to have reached a point where it is not so clear anymore what we should think about certain examples because our intuitions begin to diverge. One might argue that such examples should better be ignored yet it seems to me that in a sense they present the interesting cases. For they force us to provide a more theoretical motivation for the favored account or analysis which supports certain intuitions. Here are two lines for motivating the opposite intuitions with regard to the Köln-Mölln example.

Pragmatists and authors influenced by pragmatist reasoning have suggested that mental representations should foremost be explained in terms of their role in the determination of actions. To take up a phrase by Ramsey (1931), beliefs or more generally mental representations are *maps by which we steer*. Now ideas which are a certain kind of mental representations can be seen as steering us in respects to objects. Or to be more precise, ideas play a role in initiating descriptive and perceptual identificatory acts, on the basis of which in communication we relate to other agents' ideas and in perception we re-identify certain objects as being seen or heard of before. Now what this *action-driven* or *forward-looking* picture of ideas and mental representations might suggest is that the agent in the above Köln-Mölln example is thinking of Mölln since that is the object he would relate to in subsequent identificatory acts as has been pointed out above. For instance when

looking through a German travel guide or when talking to the people at the German tourist board he would relate to Mölln and not to Köln.

Motivation for the opposite intuition that the agent is thinking of Köln here, or at least not of Mölln, can be derived from Evans (1982). He argues that when entertaining or essaying singular thoughts our *overall aim* is to think of the object from which the idea or information associated with it derives. That is, grounded ideas and de re singular thoughts have a certain *liability*, namely the liability for being causally related to the object they are allegedly of. This distinguishes them from pure descriptive or de dicto thoughts involving aiming ideas which are not liable in such a way. For instance if I think that the murderer of Smith whoever this is was very cruel then it is not my overall aim to think of the object which this thought causally derives from but only to think of the object which satisfies the associated descriptive condition. This is different in the case I am thinking of that city I heard of some time ago which is I take to be called 'Mölln'. Here it is my aim to refer to that object which was talked of when I acquired the idea and hence I will not think of Mölln since this city was definitely not being talked about. It should be noted that this special liability of de re singular thoughts need not be explicitly acknowledged in each case an agent entertains such a thought. As Evans puts it, "it is quite unnecessary to attribute to him the intention to refer to *the object from which his information derives* ..." (p. 131) In fact, when children are talking or thinking such an intention can be missing. What they must have is the general desire that their cognitive and communicative activities are well-grounded which in the case of essaying de re singular thought just means that they causally derive in the right way. One might even adopt a Millikan line of reasoning here and say that it is the natural function of ideas and singular thoughts to represent the objects they derive from, they are just designed by evolution to fulfill this function.[13] This picture of ideas and singular thoughts can be called *origin-driven* or *backward-looking*.

Given these two pictures or approaches one can understand why satisfactional as well as causal factors should play a role in an account of mental reference. Action-driven considerations force the appeal to satisfactional factors whereas origin-driven considerations appeal to causal ones. Now Evans acknowledges both factors as equally relevant in an account of mental reference yet other authors have emphasized the one over the other. In particular over the last years many have been impressed more by the origin-driven considerations which directly support a causal account of mental reference. The question is who is right here? Are these factors equally important and if not how should they be ranked? It seems to me that origin-

[13] For more details on this interesting evolutionary line of explanation see Millikan (1984, 1993).

driven considerations should play a central role in an account of mental reference, because I agree that it is simply the function of ideas to represent the objects they causally derive from.[14] Yet I also agree with Evans and others that simply being causally related to an object is not enough for being credited with thinking about it. Also satisfactional conditions have to be fulfilled, but which? Evans' satisfactional condition, according to which an idea in order to be of an object must pick out the object, seems to be too strong. Yet on the other hand, Devitt and Sterelny's condition, according to which in the perceptual cases the object which an idea is of must satisfy a general categorial representation, seems to be too weak. Prima facie it seems that the truth has to lie between Evans' hybrid account and Devitt and Sterelny's one, but where?

What might be proposed is to weaken Evans' satisfactional condition. Instead of requiring of an idea to pick out the object it refers to, it could be required that if the idea picks out any object at all, then it must be the one it refers to. What this condition simply says is that if an idea refers to an object *o* then it cannot pick out any other object than the one it refers to. Yet, for an idea to be referring to an object, it must not necessarily pick out any object. Thus the counterexamples pointed out by Bach, where an agent's idea intuitively is of an object *o* but neither *o* nor any other object gets picked out by the idea, can now be handled. Unfortunately, the resulting hybrid account which rests on this modified satisfactional condition cannot be right either. The main problem is that the conditions for mental reference it provides are too strong. For it cannot handle cases like the Schwarz-example discussed in section 1, where an idea intuitively seems to be of an object *o*, yet not *o* but *o'* gets uniquely picked out by the idea. Such cases arise when one is in error about the object one's idea causally derives from, in the sense of possessing some representation(s) which are not true of this object but true of some other object and which together with the remaining representations that make up the idea's object-file uniquely pick out this other object. Thus, what the occurrence of such examples suggest is that it can under no circumstances be required that an idea picks out uniquely the object it is of.

In the light of these considerations it seems more promising to strengthen Devitt and Sterelny's satisfactional condition. What might be suggested as a first step is the following: the object which an idea is of must not only in the perceptual cases satisfy a general categorial represention, but in all cases. Yet as we have seen above, this modified condition is not strong enough to capture our intuitions in certain examples, for instance in the Köln/Mölln example. This suggest further

[14] As has been remarked before, ideas are always to be understood here as grounded ideas, i.e. ideas which are assumed to be grounded in an object, and not as aiming ideas. For more details on this distinction see chapter 2.

strengthening of the condition, for instance as follows: the object which an idea is of must not only satisfy a general categorial represention, but also the *important* or *highly valued* representations which make the idea's object file. On the basis of this condition, it can now be explained why in the Köln/Mölln example the agent is not thinking of Köln; the agent is entertaining an idea which has as important representation 'is called Mölln' in its object-file and this representation is not true of Köln. Thus, although the idea causally derives from Köln it is not of Köln because Köln does not satisfy a certain important representation in the idea's object file. Prima facie, the resulting hybrid account of mental reference looks more promising than the ones discussed before. Nevertheless, this account faces also severe problems. First, there is the question of what makes a representation an important or a highly valued one. Secondly, there is the question whether only some of these distinguished representations have to be true of the idea's referent or all of them. It seems that requiring all of them to be true of the referent would be too strong, yet if not all of them have to be true how many do? Finally, the main problem with the resulting account is that it also runs the danger of making mental reference too hard. For even if only some of the important representation have to be true of the idea's referent, there are always cases conceivable which would not fulfill this condition yet where we are nevertheless inclined to say that an agent is thinking of the object his idea causally derives from.

It seems that we are faced with the following dilemma: human agents are clearly able to entertain ideas and thoughts which are of particular objects, yet it seems not possible to specify the conditions under which an idea or thought is of a particular object. Devitt and Sterelny's hybrid account is too weak, yet accounts which appeal to stronger satisfactional conditions run the danger of being too strong. Now, I think there is a way out of this dilemma. Our mistake has been to assume that thinking of an object is a yes-no notion, in the sense that one either thinks of an object or one does not. Rather it seems to me a *graded notion;* i.e. our thinking of objects is a *matter of degree*. One can think of an object (under or up) to a high degree but also (under or up) to a low degree. What I want to propose is that the hybrid account which rests on the causal condition developed in the previous section and on the generalized version of Devitt and Sterelny's satisfactional condition specifies the conditions for a low degree of thinking of an object. This can be stated as follows:

Definition 1: An idea *i* is of an object *o* to a *low degree* if and only if
(a) *o* is the causal source of the representations which make up *i*'s object file, or at least the causal source of most of these representations or of those high in weight;

(b) there is a general categorial represention in *i* 's object file which is true of *o*.

On the other hand adding to these two conditions Evans' satisfactional condition will capture thinking of an object under a very high degree:

Definition 2: An idea *i* is of an object *o* to a *high degree* if and only if
(a) *o* is the causal source of the representations which make up *i*'s object file, or at least the causal source of most of these representations or of those high in weight;
(b) there is a general categorial represention in *i* 's object file which is true of *o*;
(c) *o* gets uniquely picked out by the representations which make up *i*'s object file.

In between these two degrees there will be intermediate degrees of thinking of an object.

Clearly, many questions are left open by the proposed account. For instance, what are the intermediate degrees of thinking of an object? More work will be needed to make the account more precise. Nevertheless, I think that the idea that mental reference is a matter of degree allows us to account for our various, often conflicting, intuitions concerning the phenomenon of mental reference. For instance our intuitions in the Köln/Mölln example can now be accounted as follows: the agent is not thinking of Köln to a high degree, because his underlying idea does not pick out this city but a different one. Nevertheless he thinks of Köln to a low degree since conditions (a) and (b) are fulfilled.

After this extensive discussion of the question of mental reference I will in the following chapters turn to the question under which conditions referential communication is successful. That is, in what way must the ideas associated by the speaker and the hearer with a referentially used singular term be related such that the hearer can be credited with understanding the speaker's referring act. The question of mental reference is relevant in this regard since many have assumed that for referential communication to succeed the communicating agents must entertain thoughts that refer to the same object. What I will show in the following chapter is that certain simple accounts which pursue this line fail. And they fail irrespective of whether they adhere to a satisfactional account of mental reference, to a causal account or even to a hybrid one as proposed here.

5

Traditional Accounts of Success in Referential Communication

What makes it interesting, and in fact challenging, to account for success in referential communication is a certain tension that arises with regard to it. Blackburn (1984) has described this tension as follows:

> "... we can easily come to feel both that our understanding of referential expressions must be intimately connected with the object referred to, and also that it cannot be" (p. 302).

Imagine for instance that I say to you, 'Bill Clinton will win the next presidential election'. What seems plausible is that in order to be credited with understanding my referential use of 'Bill Clinton', you have to entertain a thought which like my underlying thought is also of Bill Clinton. This suggests the following *simple object-dependent* account of success in referential communication: a referring act succeeds if and only if speaker and hearer come to entertain thoughts that refer to the same object in the world. Yet this account seems to be invalidated by other cases of referential communication: first, cases like the Camera-example presented before where communication intuitively fails although the agents' thoughts refer to the same object, and secondly, cases like the Troy-example in which communication seems to succeed although the agents thoughts refer to no objects at all. Cases of the former kind would show that a simple object-dependent success condition cannot be sufficient, and cases of the latter kind that it cannot be necessary for success in referential communication, and accordingly the resulting

account of communicative success seems to fail.[1]

In the first section of this chapter, the problems faced by a simple object-dependent account will be discussed in more detail. Besides those examples already pointed out in the introduction various other examples will be presented which will show that there can be failure in referential communication despite sameness in reference and also success in referential communication without reference. Then in second section a prominent alternative account of success in referential communication will be discussed, namely the one which can be derived from Frege's writings. According to this *Fregean account* as I will call it there are certain *senses* or *modes of presentations* associated by the communicating agents with the used referring expressions and in particular they have to be related in some way for communication to succeed. The prospects of different versions of such an account will be considered in more detail, yet I will argue that they all fail.

1. Object-Dependent Accounts of Communicative Success

According to the simple object-dependent account appealed to above, a referring act is successful if and only if the speaker's thought, which underlies his referential use of a singular term *t* refers to the same object as does the hearer's mental state into which he comes upon encountering the use of *t*. As has been pointed out before, for such an account of success in referential communication to be explanatory the following two question have to be answered:

(A) What are the thoughts which accompany the referential uses of singular terms.
(B) Under what conditions does such a thought refer to an object?

In the previous chapters answers to these questions have been proposed. With regard to question (A) it has been said that the thoughts which accompany or underly the uses of singular terms involve certain representations, namely what has been called *ideas*, i.e. representations which purport to represent particular objects. Given this assumption, the above object-dependent success condition can be stated as follows: for a referring act involving a singular term *t* to succeed, the hearer must

[1] I have chosen the name "simple object-dependent account" here because (a) it makes success dependent on the existence of an object to which the communicating agents' thoughts refer, and (b) it is the most simple account of this kind. There are more complicated object-dependent accounts conceivable which would make reference to the same object only a neccessary condition for communicative success and not a sufficient one or which would adhere to sameness in reference as a success condition only in certain cases. Object-dependent accounts of this more complicated kind will be considered in chapters 6 and 7.

come to link the use of *t* to an idea which refers to the same object as does the speaker's idea on which his referring act was based.[2] With regard to question (B), which concerns the nature of the mental reference relation, satisfactional, causal and hybrid proposals have been discussed. Different object-dependent accounts of referential communication result depending on which of those mental reference determining conditions one adheres to. Now what I will show in this section is that the different resulting accounts all are descriptively inadequate, that is they stand in conflict with certain of our intuitions regarding cases of agents succeeding or failing in referential communication. First, certain examples will be discussed which will suggest that the obtaining of the resulting object-dependent success conditions cannot be sufficient for a referring act to succeed. Then I will turn to examples which show that even they may not be necessary.

1.1 The Problem of Communicative Failure Despite Sameness in Reference

We can imagine a speech community in which people individuate the world differently from the way the world is, or from the way we as external observers conceive it to be. For instance where there is one planet Venus, the ancient Romans thought there were two planets, one which appears only in the evening and the other only in the morning. The first they called 'Hesperus' and the latter 'Phosphorus'. In the light of the above theory of mental states, this situation can be described by saying that each educated Roman possessed two different ideas for one and the same object in the world, namely what might be called a Hesperus-idea and a Phosphorus-idea. In the light of the different representations associated with these ideas, they purport to represent different objects. Yet they are really of the same object in the world, namely of the planet Venus. Not only will the ideas' satisfaction sets pick out under normal conditions the same object, but they will also causally derive from the same one. Imagine now the case where two ancient Romans are talking to each other, let us say Brutus and Rufus. Brutus says:

(1) Hesperus is very bright tonight.

In making this utterance Brutus is entertaining his Hesperus-idea and it is his intention to invoke by the use of the name 'Hesperus' the corresponding idea in Rufus. But suppose that Rufus for some reasons comes not to entertain his

[2] As has been said in chapter 3, when I speak of ideas and of referring acts I always mean what has been called grounded ideas and grounded referring acts. Further, with regard to those grounded referring acts where re-identification is required, I assume that it is performed by the hearer.

Hesperus-ideas but his Phosphorus idea - for instance he might by mistake think that Brutus has used the name 'Phosphorus' or he might simply confuse the two names. Now I think that in such a case we would not be inclined to say that Rufus has fully understood Brutus' referring act, although he comes to entertain an idea which is of the same object as is Brutus underlying idea. For Brutus was entertaining his Hesperus-idea and he intended Rufus to entertain his corresponding idea, but Rufus came to entertain his Phosphorus-idea. Yet for referential communication to succeed, he should have entertained his Hesperus-idea. Obviously this case presents a problem for a simple object-dependent account since according to it, Rufus would have already understood Brutus. For the ideas entertained by them referred to the same object, namely to Venus.

The following example presented by Loar (1976) shows that such cases of failure in understanding despite sameness in reference can occur in quite familar situations:

> "Suppose that Smith and Jones are unaware that the man being interviewed on television is someone they see on the train every morning about whom, in that latter role, they have just been talking. Smith says 'He is a stockbroker', intending to refer to the man on television; Jones takes Smith to be referring to the man on the train. Now Jones, as it happens, has correctly identified Smith's referent, since the man on television is the man on the train; but he has failed to understand Smith's utterance." (p. 357)

Again, this example can be described by saying that both Smith and Jones possess two ideas of the same object, yet which they take to represent different objects, namely the man being interviewed on television and the man they see on the train. Smith by using the referring expression 'he' intends to invoke in Jones the television-man-idea but Jones comes to entertain the train-man-idea and accordingly referential communication fails although both ideas refer to the same object.

Another example of this kind has been discussed already in the introduction, namely the following camera example: imagine that you pass by one of these shops with a TV screen in the window on which people can see themselves. Assume now, that while you are just passing by a man near to you says:

(2) You have lost your bag.

As a matter of fact you see the man who has said this on the TV screen and you also see the person who is being addressed, but you do not recognize that it is you who is being addressed. What happens is that you just walk on without answering the question and without reacting in any way. Again, this seems to be a case where communication has failed in a crucial sense although speaker and hearer both

entertain ideas with the same object as referent. The speaker entertains a perception based idea of you which causally derives from you and possibly also picks you out on the basis of a satisfaction condition. On the other hand, you, when hearing the speaker referential use of the pronoun 'you', come to re-identify the object talked about perceptually, namely by entertaining an idea which causally derives from you and which possibly also picks you out by a satisfaction condition. Thus according to a purely object-dependent account of success in referring acts you should have understood the speaker's referential use of 'you' since you both associate ideas with it which refer to the same object, namely to you. Yet in a crucial sense you did not understand what the speaker said, since you did not recognize that you were the person being addressed. Thus again it was, in an important sense, not the right idea you came to entertain, although it was one which referred to the same object as did the idea entertained by the speaker.

What these examples show is that referential communication can fail even if speaker and hearer are entertaining ideas which refer to the same object in the world. Hence the fulfillment of the object-dependent success condition cannot be sufficient for the hearer to be credited with understanding the speaker's referring act, and accordingly, a simple object dependent account which makes it a sufficient condition seems to fail. The question is whether an account which only makes it a necessary condition might be maintained. Consider in this regard the following examples which even seem to undermine the prospects of such an account.

1.2 The Problem of Communicative Success Without Reference

According to an object-dependent account of successful referential communication, there cannot be communicative success without speaker and hearer entertaining ideas which refer to an object in the world. For such an account at least makes the existence of a referent a necessary condition for communicative success. Yet as certain examples show, just the contrary seems to be the case, that is agents seem to be able to achieve successful referential communication even if their underlying ideas do not refer to any objects in the world. Most obviously this is the case with regard to what has been called before "parasitic forms of discourse", where the communicating agents simply seem to pretend the existence of certain objects that they intend to refer to while knowing that there are none. When we talk about pieces of literature or art we engage in this kind of discourse, for instance when I use the proper name 'Sherlock Holmes' as in the following sentence:

(3) Sherlock Holmes always solves all his cases.

It seems obvious that an educated person can understand my use of the name 'Sherlock Holmes' without possessing an idea which is of any Sherlock Holmes.[3]

Yet such cases of communicative success without reference not only arise with regard to those "parasitic forms of discouse" which many have thought to deserve a special treatment, but also arise with regard to what has been called "real world talk" where the existence of the object referred to is taken for granted or at least not ruled out. Consider for instance the following two examples with regard to which one can imagine that the singular expressions get used with the intention of referring to a real object in the world:

(4) Troy has been discovered.
(5) This planet seems very big.

If I uttered (4), an educated speaker will normally understand me and accordingly referential communication will succeed. Yet it seems that this would even be the case if there had never been an ancient greek city called 'Troy' and it had been entirely made up by Homer. That is, whether the name 'Troy' has a referent seems in a certain sense irrelevant for the success of referential communication involving this name. A similar point can be made with regard to an assertion of (5), under the circumstances where some astronomers think they have spotted a new planet, although they are victims of a defect in their optics and there is no planet. In this case, the astronomers come to entertain ideas which purport to represent a planet although there is no planet which fulfills the satisfaction condition associated with these ideas or which is causally responsible for their introduction. Again it seems that referential communication between the astronomers can succeed. For instance, one of them might reply the following to an utterance of (5), as Blackburn (1984, p. 313), from whom this example derives points out:

(6) Let's get the radio telescope on it - it'll make our fame and fortune.

Thus although there is no planet referred to, their referential communication involving the uses of 'this planet' and 'it' seems to succeed, that is they understand

[3] Neither do the satisfaction conditions we associate with this idea pick out any detective Sherlock Holmes nor is there the right object which has been causally responsible for the production of those ideas, because our ideas derive from Sir Arthur Conan Doyle who has invented this figure. Now one might be inclined to think that our ideas are of Doyle, yet as has been argued in the previous chapter with regard to similar examples, that would not match our intuitions regarding what it is for our ideas and thoughts to be of or about some objects in the world. At best, Doyle will qualify as something like the 'causal source' of our Sherlock Holmes ideas, but they are certainly not of him.

each other perfectly well. Thus, what these and similar examples suggest is that coming to entertain thoughts or ideas which refer to the same object in the world cannot even be a necessary condition for referential communication to succeed. For, as in these cases described here, there would not be any object referred to.

In sum then, things do not look very good for the simple object-dependent account of success in referring acts. Neither does it seem to provide a sufficient condition for communicative success nor a necessary one, which is even more damaging. An account which would make sameness in mental reference a sufficient criterion for communicative success seems to be descriptively inadequate because it cannot account for the following intuition:

Frege-Intuition: A hearer can fail to understand the referential use of a singular term by a speaker although they are entertaining thoughts that refer to the same object in the world.[4]

And an account which would make sameness in mental reference only a necessary criterion seems to fail because it clashes with the following intuition:

Empty-Case Intuition: A hearer seems to be able to understand the referential use of a singular term by a speaker although their underlying thoughts refer to no object in the world.

Against this criticism of the simple object-dependent account it might be objected that the problems only arise because one conceives of reference in a too "parochial" way. By employing a more "cosmopolitan" notion of reference, which also allows for *reference* to *fictional* or *unreal objects*, the example cases discussed above can be accounted for. On one hand our intuition of communicative failure, in cases like the Hesperus-Phosphorus example, can be captured by appeal to two different objects to which the communicating agents' thoughts or ideas refer to. For instance, Smith and Jones in Loar's example do not understand each other because one entertains an idea that refers to a man on television, and the other an idea that refers to a man on the train, which are both some sort of fictional or unreal objects. Similarly, with regard to those empty cases where no real object is referred to, our intuition of communicative success can be accounted for on the basis of the assumption that there has been reference to a fictional or unreal object. For instance

[4] I call it Frege-intuition because the examples it is based on resemble closely the ones presented by Frege in favor of the introduction of senses in his semantic theory. Yet as I will show in section 2, the examples he discusses are different in the sense that they do not concern predominantly communication but the individuation of semantic content.

the astronomers who think they have spotted a new planet, although they are victims of a defect in their optics, understand their referential uses of 'This planet' because they entertain thoughts or ideas that refer to the same fictional or unreal planet. Or similarly, when we use the name 'Sherlock Holmes' in communication, we can understand each other because we entertain ideas that refer to the same fictional object.

Clearly, as it stands, this strategy of defending the simple object-dependent account of communicative success by allowing for reference to fictional or unreal objects is not really explanatory. For it sets out to explain a problematic notion, namely that of success and failure in communication, by certain notions which prima facie seem even more problematic, namely by the notion of a fictional or unreal object and further by the notion of reference to objects of this kind. We know what tables and chairs are, but not what a fictional object like Sherlock Holmes really could be and what it could mean to refer to "him". Clearly, we sometimes talk as if there are such objects, but that does not make them in any sense more philosophically credible than miracles or the souls of the dead which are also sometimes assumed to exist in speech. The proposed defense and the resulting account of success in referential communication will only be explanatory if the following two questions can be answered in some satisfactory way:

(A) What are these unreal, fictional or possible objects that can be referred to?
(B) Under what conditions does an agent's mental state or idea refer to an object of this kind?

The first question concerns the ontological status of these additional objects which we allegedly can refer to. What are their identity-conditions, that is when are objects of this kind distinct and when are they the same? The second question concerns the conditions under which mental reference to these alleged objects obtains.

Many authors have questioned whether questions (A) and (B) can be answered in some satisfactory way. Some have rejected an "overpopulation" of ontology as it has been called out of hand because of reasons of *ontological parsimony*. Or to be more precise, what has been thought is that this strategy would only be feasible if all other strategies at less ontological cost have failed. And since that is not clear at all, we had better try to explore first alternative strategies before adhering to such an ontologically extravagant one. A more radical criticism has been put forward by Devitt and Sterelny (1987) who have argued that this strategy does not offer any real explanations of the phenomena it sets out to account for. Their argument can be reconstructed as follows:

(P1) "... explanations must be given in naturalistic, typically causal, terms." (p. 32)

(P2) Under the Enrich Ontology strategy one would "be committed to non-natural relations", namely in the sense of there being certain objects to which we allegedly refer to yet to which we do not stand in any causal relations.[5]

(CONC) Thus the alleged explanations this strategy offers for language phenomena (and in particular, success in referential communication) are not really explanations at all.

Although these considerations against the proposed strategy of defending an object-dependent account of communicative success have some initial plausibility, I do not find them convincing. To start with, appeal to ontological parsimony is only one factor by which theories are to be judged. There are other factors which play an equally or even more important role, for instance simplicity or descriptive adequacy. Thus, a theory T which in an ontological sense is less parsimonious than a theory T' can on an overall score be more adequate than T'. Against Devitt's and Sterelny's attack it can be said that also properties and relations do not stand in any causal relations, yet it is widely held that they can be appealed to in explanations, for instance in accounting for the the contents of predicative expressions. Thus, what I would question here is premiss (P1), which suggests that an explanation will only be naturalistic and thus acceptable if it is given in causal terms.

Despite the fact that the above strategy can be defended against these criticisms, it nevertheless fails as general solution to the problems faced by an object-dependent account of communicative success. Its main weakness is that it cannot not account for those cases of communicative failure where there is sameness in reference, for instance for cases like the Hesperus/Phosphorus example or the television-man/train-man example. In these cases communication seems to fails although speaker and hearer entertain ideas (or thoughts) which refer to the same real object. According to the above strategy of defense these cases are allegedly to be accounted for under the assumption that speaker and hearer are entertaining ideas (or thoughts) which refer to different fictional or unreal objects. Now the problem is that such an assumption seems hard to justify. Not only do our intuitions speak against the idea that speaker and hearer refer in these cases to different fictional or unreal objects, but also does the account of mental reference which has been proposed in the previous chapter. According to our intuitions and the standard accounts of mental reference there is always the same real object referred to, for

[5] The reason I think why these objects do not enter the causal order is I think that they do not have any existence in space and time like other tables and chairs.

instance the same planet or the same person. Accordingly, I think it is fair to conclude that if appeal to reference to fictional or unreal objects is of any help, then with regard to those cases where there seems to be communicative success despite failure in reference, yet not with regard to cases like the Hesperus/Phosphorus or the camera example. Thus to conclude, the proposed defense fails as a general solution to the problems with an object-dependent account of communicative success. Hence, I think we should better explore alternative strategies of accounting for success in referential communication. In the following section, such an alternative will be considered, namely one which can be seen as deriving from the work of Frege. The aim of this section will not be exegetical in the sense of pinning down *exactly* Frege's view on these matters, but systematic in the sense of finding out what can be gained from certain principles and assumptions commonly ascribed to him.

2. Fregean Accounts of Communicative Success

In his seminal paper "Über Sinn und Bedeutung" and in the writings that followed, Frege proposed a kind of two-folded account of semantic content. According to it, expressions are assumed to have an *external dimension* which concerns their relation to entities in the world, as well as a *cognitive dimension* which concerns their relation to the contents of agents' thoughts. The former Frege calls "Bedeutung" which following Dummett I will call *semantic value*, and the latter he calls "Sinn" which can be translated directly by *sense*.[6] The sense of an expression he identifies with what he calls a *mode of presentation* or *way of thinking* of the type of semantic value such an expression can have.[7] Like objects in the world, these modes of presentation are supposed to be *objective* in the sense that different agents can be related to them, or as Frege calls it, they can be *grasped* by different agent. Yet they also resemble our subjective ideas, namely in the sense that agents can associate different modes of presentation with expressions that have the same semantic value or even modes of presentation with expressions that have no semantic value. Paradigmatic examples of expressions of the former kind are are names like 'Hesperus' and 'Phosphorus', and of the latter kind empty names like 'Odysseus'.

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[6] Instead of translating Frege's term "Bedeutung" by "meaning", which prima facie would be suggested by standard dictionaries, I am adopting here Dummett's (1973) translation because it captures more adequately Frege's rather technical use of the term "Bedeutung" which I think is at odds with the standard use of that term in German and also with the standard use of "meaning" in English.

[7] In the following the notions of *sense* and of *mode of presentation* will be used interchangeably.

Prima facie, this makes modes of presentation the ideal candidates to account for success in referential communication, in particular to capture those problematic cases which brought down the object-dependent account. For communicative failure, in examples like the Hesperus-Phosphorus one, can now be explained by appeal to the idea that the singular modes of presentation associated with these different names are distinct. And similarly, in those empty-cases one can account for communicative success on the basis of the assumption that the communicating agents are associating the same singular modes of presentation with the used singular terms. What this presupposes is the general view of communication as the conveyance of senses or modes of presentation, which many in fact have ascribed to Frege.[8] According to this view, a hearer *H* has understood the referential use of a singular term *t* by a speaker *S*, and thus the speaker's referring act is successful, if and only if *H* comes to attach the same mode of presentation to that use of *t* as did the speaker *S* when using *t*.

Clearly, in order to give this Fregean view of success in referring acts and, in particular, the strategy of dealing with those problematic cases some credibility, the following questions have to be answered:

(A) What are these modes of presentation that agents supposedly associate with referential uses of singular terms?

(B) Under what conditions does an agent entertain or exercise such a mode of presentation and in particular associates it with the referential use of a singular term?

The first concerns the nature of *singular modes of presentation*, as I will call them in the following, that is how should they be individuated, while the second question concerns their instantiation conditions. Traditionally, much work has been focused on question (A), in particular in the context of providing a semantic analysis for the so called "propositional attitude reports". Yet it should be noted that for evaluating the adequacy of a Fregean account of communicative success, an answer to question (B) is needed as well. Now, what I want to argue in the following is that given certain widely held assumptions regarding how these questions should be answered, the Fregean account of success in referring acts faces severe problems, namely it does not seem to be descriptively adequate either. That is, certain of our intuitions regarding agents succeeding in referring acts

[8] See Dummett (1981) or Evans (1982) who call this the *Fregean account* or *theory of communication*.

cannot be captured by it.[9]

2.1 The Problem of Diversity

Frege's main motivation for the introduction of senses in his semantic theory are certain example cases which are hard to deal with under a purely "extensional" account which appeals only to the semantic values of expressions. These are cases where the "cognitive contents" of certain co-referential expressions intuitively differ. For instance, a competent speaker who is ignorant of the fact that the singular terms 'Hesperus' and 'Phosphorus' both refer to the star Venus might assert to the sentence (7) while rejecting at the same time sentencc (8):

(7) Hesperus has just appeared in the sky.
(8) Phosphorus has just appeared in the sky.

Now such cases present a problem if one adheres to the following assumptions:

(A1) The semantic contribution of a singular term to a thought-content is its referent.
(A2) The contents of thoughts are expressed by sentences.

For, given these assumptions, sentences (7) and (8) will have the same contents and thus one could not explain how agents can take different attitudes toward them, that is "think the content" expressed by (7) and "not think the content" expressed by (8). Frege tried to solve this problem by assuming that there is something associated with a singular term which is different from its referent, namely its *sense* or *mode of presentation.*

What is important to note is that this problem is not the same as the one discussed above which also involved coreferential singular terms, namely in those cases of

[9] In recent years some authors have attributed to Frege the view that singular modes of presentation are identity dependent on the objects referred to. That is, without there being a referent of one's thought there will not be a mode of presentation entertained by it and further, different modes of presentation will be entertained if different objects are referred to by the underlying thoughts. Such an interpretation of Frege has been put forward Evans (1981, 1982) and later been endorsed by McDowell (1985). Clearly, if such a view were true, then singular modes of presentation could not be employed to account for success in those empty cases where the communicating underlying thoughts do not refer to any objects; because in such cases there would simply be no such modes. For this reason I will in the following assume that singular modes of presentation are not *object-dependent.* In fact, I think that their interpretation of Frege is not well supported by Frege's writings anyway. For instance, as he stated it explicitly: "whether a name [singular term] has a referent [Bedeutung] is irrelevant for the mere thought-content." For a more detailed criticism of Evans' and McDowell 's interpretation of Frege see Bell's (1990) recent article.

communicative failure despite sameness in reference. There we were concerned with the question of success in communication, whereas here we are concerned not with communication, but foremost with the individuation thought-contents. Accordingly, this problem has also been called the *problem of cognitive significance* ,whereas the one involving cases of communicative failure despite sameness in reference might be called the *problem of communicative significance*. What they have in common is that they both point at the shortcomings of a purely extensional conception of language according to which the semantic and communicative contribution of a singular term is exhausted by its referent. What the problem of cognitive significance is meant to show, is that if this were so then one could not account for certain intuitions regarding the individuation of thought-contents and the ascription of propositional attitudes, and what the communicative significance problem points at is that then one could not account for certain intuitions we have regarding agents succeeding and failing in referential communication. Now one might think that both problems can be solved in the same way, namely by appeal to the notion of sense or mode of presentation. Yet as I will show in the following, the notion of sense needed in order to avoid the problem of cognitive significance is much too fine-grained to do the required work in the account of communication envisaged by Frege. For, in order to avoid this problem, they have to be individuated and ascribed in accordance with the following *criterion of cognitive significance*, as it has been called:

The Criterion of Cognitive Significance (CCS): The sense associated with (the use of) a sentence s must be different from the sense associated with (the use of) another sentence s', if it is possible for a competent speaker to understand both sentences at a given time while coherently taking different attitudes toward them, that is accepting one while rejecting or being agnostic about the other. The senses of other types of expression that make up sentences must be identified and distinguished in harmony with this criterion, that is the senses of two singular terms t and t' are different if and only if there are sentences s and s' which only differ in that where t occurs in s, t' occurs in s' and s and s' have a different sense.[10]

What I will argue is that this criterion (CCS) is not compatible with the Fregean account of communication, which in its most general form can be stated as follows:

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[10] See Evans (1982), Salmon (1986), Schiffer (1978, 1990) or Taylor (1995) for statements of this criterion which can be seen as presenting the backbone of a Fregean account of language.

Fregean Account of Communication (FAC): Senses get conveyed in communication and, in particular, for communication to succeed speaker and hearer must associate the same senses with the used expressions, for instance the same sense with the used singular terms.

More precisely, I will show that (CCS) is incompatible with the account of communicative success that (FAC) yields for referring acts or referential communication, which can be stated as follows:

Fregean Account of Success in Referring Acts (FASR): A hearer *H* has understood the referential use of a singular term *t* by a speaker *S* and thus the speaker's referring act is successful if and only if *H* comes to attach to that use of *t* the *same* mode of presentation as did *S* when using *t*.

In short, the argument for the incompatibility will run as follows: if these senses or modes of presentation associated with uses of singular terms, which I have called *singular modes of presentation*, are individuated in accordance with (CCS), then this Fregean account of success in referring acts will be too strong. For in many cases where we intuitively think that the hearer has understood the speaker's referential use of a singular term, no understanding would occur according to (FASR) since the associated singular modes of presentation in these cases are simply distinct.

In order to show this, let me first state some principles that can be derived from (CCS) which establish a connection between the senses associated by agents with uses of singular terms and the descriptions or predicates they associate with these uses, for instance in the sense of taking them to apply or hold true of the alleged referents of the used singular terms. To start with, the following principle can be seen as a direct consequence of (CCS):

Principle-1: If a subject *S* associates different descriptions or predicates with (uses of) singular terms *t* and *t'*, then *S* also associates different singular modes of presentation with them (relative to their uses).

This follows from (CCS) because if a person associates different predicates with two singular terms then there will also be a sentence *s(t)* which he will hold true (or reject) while at the same time reject (or hold true) *s(t')*. For instance if *P* is a predicate which *S* associates with *t* but not with *t'*, then *P(t)* is a sentence which *S* will hold true while at the same time at least being agnostic towards *P(t')*. Now what holds for the individual case also should hold in a similar way for the social

case, which involves different subjects:

Principle-2: If two subjects *S* and *S'* associate different descriptions or predicates with (a use of) a singular term *t*, then *S* and *S'* also associate different singular modes of presentation with (that use of) *t*.

Frege (1892) explicitly endorses Principle-2 when he writes in "About Sense and Reference" in regard to the name "Aristotele":

> "In the case of an actual proper name such as 'Aristotele' opinions as to the sense may differ. It might, for instance, be taken to be the following: the pupil of Plato and teacher of Alexander the Great. Anyone who does this will attach another sense to the sentence 'Aristotle was born in Stagira' than will a man who takes as the sense of the name the following: the teacher of Alexandre the Great who was born in Stagira." (Footnote 2)

Yet one might wonder whether Principle-2 really follows from the above Principle-1 or from (CCS). That is, why should what holds true in the individual case also hold true in the social case. I think the reason is simply the following: it is hard to conceive of any individuation of Fregean senses which tkaes them in the social case to be identical, despite differences in the associated predicates or descriptions between different agents, while forcing them in the corresponding individual case to be different. In order to explain the difference in senses in the individual case as required by (CCS), one seems to be forced also to require analogous difference in the social case. In the following I will assume that Principle 2 holds as well.

But if we combine Principle 2 with the Fregean account of success in referring acts (FASR) then the following success criterion results:

A hearer *H* has understood the referential use of a singular term *t* by a speaker *S*, and thus the speaker's referring act is successful, only if *H* comes to associate the *same* predicates or descriptions with *t* as did *S* when using *t*.

That is, it will be a necessary criterion for communicative success in referring acts that speaker and hearer associate the same predicates or descriptions with the used singular term. Now the problem is that this rarely seems to be the case. We understand the referential uses of singular terms by other agents although we do not associate exactly the same predicates or descriptions with them. Consider in this regard the following example: You might not know that Chomsky, besides being a linguist, is also a radical political writer and therefore just think of him as under the following predicates:

P1 = {'is the famous linguist called "Chomsky"', 'wrote "Syntactic Structures", 'argued for innate ideas'}

I, on the other hand, might associate with this name the following predicates:

P2 = {'is the famous linguist called "Chomsky"', 'argued for innate ideas', 'is a radical political writer'}

Since these sets of predicates differ, the singular modes of presentation we associate with the name 'Noam Chomsky' will also differ in accordance with Principle 2. Nevertheless, this difference would not make our referential communication involving that name fail. But according to the above success condition which results from Principle 2 and the Fregean account of communication, that should be the case. Many similar examples are conceivable. In fact, in very few cases do agents associate exactly the same predicates or descriptions with uses of singular terms that they perfectly understand. Accordingly the Fregean account of communication, paired with the traditional conception of senses or modes of presentation, will be descriptively inadequate in a very dramatic way. It cannot account for the following intuition:

Diversity-Intuition: A hearer seems to be able to understand the referential use of a singular term by a speaker although they are not attaching the same modes of presentation to it.

In the following I will call the resulting problem for the Fregean account of communicative success the *problem of diversity.*[11]

Interestingly, Frege seems to have acknowledged this problem when he notes the possibility of diverging senses regarding the name 'Aristoteles'. There he suggests the following solution to the problem of diversity:

> "So long as the thing meant (Bedeutung) remains the same, such variations of sense may be tolerated ... ".[12]

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[11] It should be noted that this problem would have come up immediately had we individuated the sense or the singular mode of presentation associated by a subject *S* with a referential use of a singular term *t* with the satisfaction set of the underlying idea associated with *t* by *S*. Remember such a satisfaction set comprises of those properties and relations which the representations that make up the idea's object file are of. For instance the ideas which different agents possess of the linguist Chomsky will usually have different satisfaction sets, yet nevertheless they can understand each other.

[12] See again Footnote 2 in Frege (1892).

Thus Frege seems to be willing to give up his criterion for communicative success in referring acts, which is sameness in singular modes of presentation, and replace it by one which appeals to sameness in reference. Clearly, this solution seems against the spirit of what has been above called the Fregean account of communication (FAC), according to which success is supposed to be obtained simply because the entertained modes of presentation are identical. Yet more importantly, it also does not work for those empty cases where nothing gets referred to. Note, also in these cases there can be communicative success despite differences in modes of presentation. For instance many of us will associate with the name 'Troy' different sets of predicates and accordingly, also the attached senses would be different. Nevertheless, it seems that we have normally understood the uses of this name, and this even if they always have been empty because Homer invented the whole story regarding that alleged city called 'Troy'. Now the problem is that communicative success in these cases could not be explained by appeal to a shared referent since there simply is no referent. This raises the question whether or not one can come up with another solution to the problem of diversity, which on one hand is more in the spirit of a Fregean account of communication, and on the other hand also handles those empty cases. In the following section the prospects of such Fregean solutions will be explored.

2.2 The Similarity Strategy and Why it Fails

What might be suggested in the light of the problem of diversity is to relax the Fregean communication-inducing relation that is supposed to hold between the entertained modes of presentation. That is, instead of requiring the entertained modes of presentation to be identical for successful communication, one might argue that they only have to be *sufficiently similar*. For instance then it could be said that the agents in the above example understand their referential uses of the name 'Chomsky' because they associate similar modes of presentations with their uses. Let us call this strategy the *similarity-strategy*. Clearly, any account that adheres to this strategy would break with the Fregean account of communication (FAC) as presented above, since sameness in sense was not required anymore for communicative success. Yet it seems that this is the only option a Fregean has who wants to maintain an individuation of modes of presentation along criterion (CCS), and who assumes that success in communication is to be accounted for *solely* in terms of such modes being related in some way; an account which appeals to this latter assumption will be called a *Fregean-style account*. Thus let us explore what the prospects of the similarity strategy, and of Fregean-style accounts which adhere to it, are in dealing with the above diversity problem.

The central question that arises in this regard is to spell out what could be meant by modes of presentation being "sufficiently similar". Clearly, in order to evaluate possible candidate similarity relations one really has to know what modes of presentation are, in particular those singular ones that are assumed to be associated with referential uses of singular terms. Over the last decades various proposals regarding the nature of singular modes of presentation have been put forward. For instance they have been conceived of as collections of words or sets of predicates, as functional roles of the underlying mentalese tokens, as information files or set of properties, or even as certain kinds of causal chains.[13] Instead of exploring the prospects of all possible Fregean-style accounts of communication which might arise from these different views on singular modes of presentation, I want to point out a general problem which puts into doubt at least many of these accounts. This problem arises with regard to those accounts that adhere to a conception of singular modes of presentation, under which the following comes out true:

(P1) There will be cases of referential communication where the same modes of presentation are entertained by two or more agents although their underlying thoughts or ideas refer to different objects.[14]

Now what I want to argue is the following: if one adheres to a conception of singular modes of presentation which respects (P1), then irrespective of whether one assumes identity or some other similarity relation as communication-inducing relation, the resulting Fregean-style accounts will always be incomplete in the sense that they do not provide *sufficient criteria* for communicative success. That is, there will always be cases of referential communication where the communicating agents associate with the used singular term modes of presentation that stand in the proposed similarity relation, yet where communication nevertheless fails. And thus

[13] See for instance Schiffer (1990) for a nice overview of some of these different proposals.

[14] Clearly, (P1) is in an important sense anti-Fregean since Frege adhered to the principle that *senses* or *modes of presentation determine reference*, that is sameness in sense implies sameness in reference or semantic value. Yet interestingly, many of these recent accounts in regard to what (singular) modes of presentation are break with this principle since they allow for the truth of (P1); a good example is for instance the account of Recanati (1993). The reason why they allow for the truth of (P1) seems to me the following: On one hand they acknowledge the need for a cognitive or psychological conception of modes of presentation on the basis of which agents' behaviour can be explained. Yet on the other hand they accept, in particular influenced by work of Putnam (1975), Burge (1979) or Kripke (1973), that "extension is not determined by psychological state" but rather by causal factors. For instance, given one identifies the singular mode of presentation associated with a used singular term with the satisfaction set of the underlying idea, and one further adheres to the account of mental reference proposed in the previous chapter, then (P1) will come out to be true. That is, agents can entertain ideas with the same satisfaction sets although these ideas refer to different objects.

all those Fregean-style accounts are inadequate.

To start with, (P1) assumes that there are cases where agents entertain the same modes of presentation in communication but where they nevertheless refer to different objects. The following example presents such a case. Two hikers, Joan and Mary, climbed up the Matterhorn in Swizerland separately. On their way up they both spotted a green rock, yet each of them a different one, which lead to the introduction of a rock idea in their cognitive systems. Let us say Joan acquires and idea which is of rock-1, and Mary one which is of rock-2. Later in the evening they meet at a campground down in the valley where they talk about their tours:

(9) Mary: Did you see that green colored rock on your way back?
Joan: You mean the one located 50 meters after the first path mark.
Mary: Yes, that one, wasn't it wonderful?
Joan: Yes it was, and very huge indeed!

Now given we identify the singular modes of presentation they associate with a used singular term with the satisfaction sets of their underlying rock, ideas then it is possible that Joan and Mary entertain ideas with the same sets. For instance they both might attach the following satisfaction set to their ideas:

{*being a rock, being green, being located located approximately 50 meters after the first path mark, being huge*}[15]

Yet their underlying ideas clearly refer to different objects, namely to the different rocks they have seen. Other cases like this one, in which the communicating agents' underlying mental states refer to different objects yet where the entertained modes of presentation are the same, are conceivable. Now the problem is that in such cases we would not say that the communicating agents understand their referring acts. For instance Joan does not understand Mary's use of 'that green coloured rock' because they are thinking simply of different objects. Or to put it in more general terms:

(P2) If the communicating agents' underlying ideas or thoughts refer to different objects, then they cannot be credited with understanding each other in referential communication.

Thus it follows that identity in singular modes of presentation conceived of in a

[15] In fact they might even associate the same pictoral representation with their rock ideas, that is representations which have the same contents.

way that respects (P1) cannot be a sufficient criterion for communicative success. For there are cases conceivable where the entertained modes of presentation are the same yet where communication nevertheless fails because there are different objects referred to. Clearly, this undermines the initial Fregean account of communication (FAC) which requires for communicative success that speaker and hearer entertain the same singular modes of presentation. Yet one might wonder whether this also undermines a Fregean-style account which replaces identity as the communication-inducing relation by a similarity relation. That this is the case should be quite obvious given the following plausible constraint on any such similarity relation:

(P3): If the modes of presentation entertained by two agents are identical then they are also sufficiently similar.

Thus if there are cases where the entertained modes of presentation are same, although different objects are referred to, then there are also cases where such modes are similar and there is difference in reference. And hence similarity in the entertained modes of presentation also cannot be a sufficient criterion for communicative success. Thus we have come up with an argument which undermines the prospect of many Fregean-style accounts from the start.

Clearly, as it stands, the argument only applies to those Fregean style accounts which adhere to a conception of modes of presentation which allows for the truth of (P1) above. As has been noted before, this makes the argument in an important sense anti-Fregean since it rejects the principle that sense or mode of presentation determines reference. Now I think one can overcome this limitation by acknowledging that even if sameness in modes of presentation implies sameness in reference, probably similarity in modes of presentation will not imply this. For it seems plausible that the following holds:

(P1*) There will be cases of referential communication where similar modes of presentation are entertained by two or more agents although their underlying thoughts or ideas refer to different objects.

But if (P1*) holds then the same problem arises as it does under (P1), namely that the resulting account will stand in conflict with (P2). Clearly, what might be argued is that even the relevant similarity relation will ensure sameness in reference. Yet the challenge for someone in favor of such an account will then be to come up with a conception of modes of presentation and with a similarity relation under which this holds. As Evans said in a similar context: "I do not say that it cannot be done,

but I myself do not see how to do it."[16]

Thus to sum up this discussion, it seems that the prospects of Fregean-style accounts in overcoming the problem of diversity are very dim since they face another severe problem. The problem is that such accounts run the danger of always being incomplete in the sense of providing only a necessary condition(s) for communicative success but not a sufficient one(s). This justifies the search for an alternative account of success in referential communication. In the following chapter I will turn to a prominent one, namely to Evans' account.

16 Evans (1982, p. 332-337) discusses the prospects of accounts of referential communication, which assume that communicative success can be explained without appealing to the idea of there being a common object referred to, but solely in terms of a *correspondence* in agents' underlying thoughts. Under the assumption made here that modes of presentation are not object-dependent, such accounts correspond roughly to what I have called above Fregean-style accounts.

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Evans' Account of Success in Referential Communication

In his seminal book "The Varieties of Reference", Evans (1982) argues for an object-dependent account of success in referential communication. Its central claim is that for genuine cases of referential communication to be successful, there must be an object which the speaker's and hearer's underlying thoughts both refer to. Evans believes that making sameness in mental reference a necessary condition for communicative success presents the only option one has in overcoming those problems faced by Fregean-style accounts, in particular the problem of diversity. Yet as we have seen in the previous chapter, an object-dependent account of communicative success gets into trouble with two other central problems, namely the problem of communicative significance and the problem of vacuous reference. For on one hand, referential communication can fail despite sameness in reference and thus an object-dependent success had to be augmented by a further success condition, and on the other hand, there can also be communicative success without reference to any objects, which seems to undermine such an account altogether.

Evans is quite aware of these problems and he comes up with solutions to them. The first one he aims to solve by appeal to Fregean elements in his account. That is, for the hearer to be credited with understanding the speaker's referential uses of a singular term, he must not only be related to the right object, but in addition he must also think of this object in the *right* way or under the *right mode of presentation.* What remains is the problem with those successful empty cases, which seems much more devastating for an object-dependent account than the problem of communicative significance. For it not only points out its incompleteness but it undermines its prospects altogether. Evans attacks this problem in two different ways. On one hand he presents certain theoretical

arguments through which he attempts to show that in genuine cases of referential communication there cannot be any communicative success in the absence of a referent. But secondly, he also sets out to attack directly our conflicting intuition of communicative success in those empty cases, namely by distinguishing *genuine* cases of referential communication from those which he calls *quasi* or *make - believe cases*. By the latter he means cases where agents use singular terms within the pretence of there being certain objects referred to while knowing that there are none. Now according to Evans those problematic empty cases can be accounted for under the following assumptions: first, they are cases of quasi-referential communication; and secondly, a different success condition applies to this form of communication, namely one which appeals to the idea that the communicating agents' thoughts have the same *causal source* or *origin*. Under this condition, then, our intuitions of communicative success in those empty-cases can be explained.

In the present chapter the prospects of Evans' complex account of communicative success in referential communication will be discussed in more detail. The focus will be on his proposed solution of the problem with those empty cases, which prima facie undermines any object-dependent account. In the first section I will briefly present Evans' overall account and then turn to his constructive proposal regarding those empty cases. It will be argued that this proposal, which rests on the distinction between genuine and quasi-referential communication, fails. Then in the remaining two sections, Evans' theoretical arguments in favor of the claim that referential communication cannot succeed if nothing is referred to will be discussed, namely the *argument of understanding* and the *argument of unity*. For note, even if our conflicting empty-case intuition, as it has been called in the previous chapter, cannot be explained in any direct way, maybe there is a chance that it can be *tutored* by some more theoretical considerations. Unfortunately, Evans' theoretical arguments also fail which will undermine his proposed solution of the problem with those empty cases altogether. Yet in discussing his second argument I will point in a direction in which I think Evans' account can be modified that will allow us to overcome this problem.

1. Quasi-Referential Communication and the Problem of Communicative Success Without Reference

Referring acts have been characterized as those communicative acts in which speakers use expressions to invoke certain mental representations, namely ideas, in their hearers. Ideas are our means of representing particular objects, and they point at certain files or dossiers of representations that are assumed to hold of their

purported referents. Now for an identificatory referring act to succeed, the hearer must link the used singular term with an idea in his possession or with a newly introduced perceptual idea. As has been pointed out before, this description of referring acts follows in many respects the one given by Evans (1982). Yet one point where his and the one adhered to here depart is in regard to the question of how these object-files are conceived of. According to the proposal made before these files comprise certain agent-bound representations, which themselves can have certain semantic properties, whereas Evans analyses them as files or dossiers of *information*, which are already semantic objects. Accordingly, he speaks of *information-invoking uses* of singular terms and of *information-based communication*, whereby he means what has been called so far referential uses and referential communication. For reasons stated before I will not make use here of the notion of information but will continue to appeal to agents' representations. Thus wherever I quote Evans, and where he uses the notion of information, he should be understood in this latter way.

Regarding the conditions under which referring acts are successful, Evans states the following:

> "... the conditions of understanding require the audience to be thinking of an object which is also the object the speaker refers to." (Evans, 1982, p. 332)[1]

That is, for a referring act to succeed the hearer must come to entertain an idea that is of the same object as is the speaker's underlying idea. Obviously, this is the object-dependent success condition adhered to by the simple object-dependent account discussed in the previous chapter. Yet where it there was taken also as sufficient condition for communicative success, Evans takes it only as a necessary condition, and accordingly his account is only object-dependent in a "mild" sense. In addition he comes up with the following constraint on the understanding of referring acts:

> "... understanding the remarks we are concerned with requires not just that the hearer think of the referent, but that he think of it in the *right way*" (p. 315)

Using the terminology employed so far this can be stated as follows: for referential communication to succeed the hearer must not only entertain an idea that is of the same object as is the speaker's underlying idea, but that object must also be presented to him in a certain way, that is he must entertain the "right" mode of presentation. Clearly, the crucial questions that arise with regard to this latter

[1] Whenever I quote Evans in the following I will refer to his book "The Varities of Reference", if not stated otherwise.

success condition are the following ones: first, in which cases of referential communication involving genuine singular terms do the hearers not only have to entertain ideas that are of the speaker's referents, but in addition certain modes of presentation? And secondly, what are the "right" modes of presentation in these cases? These questions will be discussed in more detail in the next chapter, yet what can be already pointed out at this stage is that Evans does not require hearer and speaker to entertain the same modes of presentation as required under the Fregean account.[2]

What are the advantages of such a *hybrid account* of referential communication, which combines an object-dependent success condition with a Fregean one? To start with, it offers the prospect of avoiding the problem of communicative significance as it was faced by the simple object-dependent account. This was the problem that communication can fail, for instance in the Hesperus/Phosphorus example, even if the speaker's and hearer's underlying ideas refer to the same object. Now under such a hybrid account, failure can in principle be explained here by appeal to the Fregean success condition. Secondly, also the problem of diversity as faced by the Fregean account does not arise under such a hybrid one, since it does not require the entertained modes of presentation to be identical. And thirdly, qua object-dependent account it also fulfills the general constraint on any account of success in referential communication stated at the end of the last chaper, which was that there cannot be communicative success if the speaker's and hearer's underlying thoughts or ideas refer to different objects.

Nevertheless one central problem remains, namely the problem of communicative success in the absence of reference. Such a hybrid account is simply unable to deal with this problem since it makes communicative success object-dependent. For instance, in cases like the Troy example discussed in the previous chapter, there could not be successful referential communication if there was no city or place referred to by this name. The same holds for examples in which agents use singular terms to refer to certain fictional characters, as in 'Sherlock Holmes solved the murder case quite successfully'. Obviously, this presents a severe problem for Evans' hybrid account of success in referential communication because it simply seems to fail on descriptive grounds. Evans acknowledges this when he writes:

> "Anyone who is attracted by a Russellian view of a class of singular terms must always attempt this further task: the task of explaining why, when a

[2] Recanati (1993) has come up with similar kind of account of success in referential communication which combines an object-dependent success condition with a Fregean one. The latter kind of condition he appeals to when he writes: "... there are cases in which understanding an utterance clearly requires thinking of the reference under a certain mode of presentation" (p. 53). In the next chapter the Fregean part of Recanati's account will also be considered in more detail.

> member of the class is empty, there is such a strong *impression* of understanding, communicating and thinking"(p. 31)[3]

In his book "The Varities of Reference" Evans has tried to explain the conflicting intuition that there can be communicative success in referential communication in the absence of a referent. His explanation is based on a distinction he draws between *genuine cases* of referential communication and what he calles *quasi* or *make-believe cases*. Characteristic of these latter cases is that the communicating agents engage in a form of *pretence*, namely in the pretence that there is a referent although they know that there is none. Evans puts it as follows:

> "People are engaged in exactly this kind of serious exploitation of pretence ... by knowingly using empty singular terms". ('VR', p. 364)

Thus what is characteristic of quasi or make-believe referential communication is the *knowing use of empty singular terms*. Prototypical examples occur, according to Evans, in talk about novels, plays, films, paintings, or in talk about "all our representational art" (p. 340). For here the communicating agents simply pretend that there is a referent although they know that there is none. For instance when we talk about Superman's last adventures, we would just pretend that there is an object to which we are referring. We can get into a dispute about what he has done, but following Evans, we are not communicating about "Superman" in a *genuine way* but only in a *quasi way*. For we know that we are not really talking about a real object; we simply pretend that we are doing so.

What Evans appeals to here is the already familar distinction between "discourse about reality" and "discourse about fiction" which has been drawn in one way or other by many authors. Searle (1969) for instance makes such a distinction when he talks about "real world talk" and "let's pretend mode of discourse". Now Evans' claim is that by appeal to this distinction, in particular by acknowledging the let's pretend mode of discourse besides the real world talk, our conflicting intuition of communicative success in the problematic empty cases can be accounted for, at least in part. He states this as follows:

> "Now it seems to me that a proper appreciation of the nature and extent of linguistic pretence holds the key to an adequate theory of reference. For it, and it alone, enables us to hold on the insight that singular terms are (generally

[3] According to Evans, "... a term is a Russellian singular term if and only if it is a member of a category of singular terms such that nothing is said by someone who utters a sentence containing such a term unless the term has a referent ... To say that nothing has been said in a particular utterance is, quite generally, to say that nothing constitutes *understanding* the utterance." (p. 71) He assumes that indexicals, proper names and demonstrative terms belong to this class of Russellian singular terms.

> speaking) Russellian [i.e. if no referent then no understanding], while taking a realistic and credible view of phenomena apparently inconsistent with this insight." ('VR', p. 340)

For, like genuine referential communication, cases of quasi-referential communication, i.e. cases in the let's pretend mode, can also succeed or fail, yet the conditions for success and failure are quite different here. Whereas for the success of genuine referential communication it is required that the communicating agents entertain thoughts or ideas of the same real object, for quasi-referential communication to succeed different conditions have to be fulfilled. The account Evans offers appeals to the idea that in these cases the speaker's and hearer's underlying thoughts must have the same *origin* or the same *causal source*. For instance they must "derive from the same story teller or from the same film", as he puts it.[4] This allows one to account for the intuition that agents can understand uses of the name 'Superman', namely by appeal to the idea that their thoughts have the same source; they derive from the same film.[5] More generally speaking, the solution to the problem of communicative success in those empty cases which can be extracted from Evans, runs as follows:

(A1) Those conflicting empty cases where referential communication allegedly succeeds are cases of quasi-referential communication.

(A2) Cases of quasi-referential communication are successful if and only if the success conditions for this form of communication apply, which are different from those of genuine referential communication - according to Evans the communicating agents' underlying thoughts or ideas must only have the same causal source or origin and not be of the same object.

(A3) In those conflicting empty cases the success conditions for quasi-referential communication are fulfilled and accordingly our intuition of communicative success can be explained.

Clearly, if (A1) - (A3) were true then the problem with those empty cases would vanish. For our intuitions of communicative success with regard to them would not

[4] With regard to those conditions he writes: "These merely apparent sufficient [success] conditions for genuine referential communication are genuinely sufficient - and necessary - conditions for make-believe referential communication ... " ('VR', p. 362)

[5] Other authors like Parsons (1980) or Searle (1969) have proposed to account for success in cases of referential communication that occur in "discourse about fiction" or in the "let's pretend mode of talk" by appeal to some sort of fictional or unreal objects. In the next chapter such proposals will be discussed in some more detail.

undermine Evans' object-dependent account of success for cases of genuine referential communication.

It should be noted that Evans, in coming up with this alleged solution, partially gives up on an overall object-dependent account of referential communication. For he no longer endorses an object-dependent success condition with regard to all cases of referential communication, but only with regard to what he calls the genuine cases of referential communication. The overall account of success in referential communication he arrives at can be summarized as follows: two kinds of cases of referential communication have to be distinguished, cases of *genuine referential communication* and cases of *quasi* or *make-believe referential communication*. For cases of genuine referential communication to succeed the hearer must come to entertain a thought or idea which refers to the same object as does the speaker's underlying thought or idea. On the other hand, for cases of quasi referential communication to succeed the hearer must come to entertain a thought or idea which has the same origin or source as the speaker's underlying thought or idea. Yet although this account fares much better than any simple object-dependent account, I think that it nevertheless fails. The central problem is that is still cannot account for all our intuitions regarding those empty cases. These intuitions are supposedly accounted for under the assumption that they concern quasi referential communication - see claims (A1) - (A3) above. Clearly, in order to give this solution some credibility, it has to make more precise under which conditions quasi-referential communication is successful, for instance what it means exactly for two thoughts or ideas to have the same origin or causal source. Yet what I want to claim is that irrespective of whether this can be done the offered solution fails. The reason is that assumption (A1) above, on which this solution crucially depends, does not hold, at least not in its most general form. Remember, it says that those conflicting empty cases where referential communication allegedly succeeds are cases of quasi-referential communication. Now the problem is that there are many empty cases where on one hand communication seems to succeed, yet which on the other hand do not qualify as cases of referential communication in the let's pretend mode. The cases I have in mind here are those in which the communicating agents *falsely believe* that there is a referent, although there is none, or are *agnostic* in regard to whether there is a referent. For instance the Troy example, where the communicating agents have believed falsely that the name 'Troy' has a referent, although there is none, presents such a case. Likewise, imagine that one reads a story in the newspaper about a murderer called 'Smith' which is entirely made up, but which one believes to be true. Also in this case it seems that one can engage in successful communication with a friend who has read the same story and also believes into the existence of Smith. Now the problem with

these cases is that *they do not qualify as cases of quasi referential communication* since the communicating agents are not knowingly using empty singular terms, which was supposed to be the distinctive mark of quasi referential communication. Accordingly, our conflicting intuitions of communicative success here cannot be accounted for in the desired way since they concern what, according to Evans, would classify as genuine referential communication. Thus his overall account of success in referential communication, which assumes these latter cases to be object-dependent, still seems to fail.[6]

One might think that Evans' solution can be defended by arguing that those empty cases, like the Troy example, where referential communication seems to succeed and which do not qualify as cases of quasi referential communication are quite rare and exceptional. And since there are always abnormalities which theories cannot account for, they do not have the force of undermining Evans' theory. The problem with this line of defense is that in fact such cases where agents falsely believe in the existence of a referent, or are agnostic about its existential status, are quite common. Indeed, in much of our daily chats we do not really care whether the referent exists or not. Nevertheless we still seem to be able to achieve communicative success even if there is no referent. Thus, since these cases are so pervasive and since they cannot be accounted for as proposed by Evans, they should be seen as undermining his account.

To conclude this discussion, Evans' proposed solution to the problem with those empty cases fails. For the assumption (A1) it crucially depends on is simply wrong, namely that those empty cases are always cases of quasi referential communication in which the communicating agents *knowingly* make use of empty singular terms. This makes his "mildly" object-dependent account of success in referential communication descriptively inadequate as well. That is, like the other accounts discussed before, it also does not capture certain of our intuitions regarding agents succeeding and failing in referential communication. Now Evans has not only appealed to the notion of quasi referential communication to account for the conflicting empy-case intuitions, but also has he put forward two theoretical arguments for the claim that in cases of genuine referential communication there cannot be communicative success in the absence of a referent. To these arguments I will turn in the following two sections, for there is still the chance that through them our conflicting intuition might be tutored in the sense that we come to realize that in those critical empty cases, like the Troy example, there simply is not

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[6] A critique of Evans' account a long this line has been put forward by Devitt (1985, p. 221) who writes with regard to such examples: "No comfort for folk here".

communicative success.[7]

2. The Argument from Understanding

In section 9.4 of his book Evans argues for the claim that referentially used singular terms are Russellian. That is, if nothing gets referred to by such uses of singular terms, then also no thought-contents or propositions get expressed by remarks which have them as constituents.[8] Now if one further accepts the assumption that for communication to succeed a proposition must get expressed, it would follow that in those empty cases of referential communication, where nothing gets referred to, communication could not be successful either.[9] Thus if Evans' claim that referentially used singular terms are Russellian were true, and given this widely held assumption regarding success in communication, it would follow that an account of success in referential communication must be object-dependent.[10] In the following it will be inquired whether Evans' argument for his claim that referentially used singular terms are Russellian is successful. I will call this claim the *intended conclusion* (IC) and it can be stated as follows:

(IC) For any utterance of a sentence *P(t)* involving a referentially used singular term *t* and a predicate *P(x)* it holds that if nothing gets referred to by *t* then no proposition gets expressed by *P(t)*.

Examples of a sentence *P(t)* would be 'John is bold', 'This is red', 'Santa Claus has a white beard', etc.

Evans' argument for (IC), which Boer (1990) has called the *argument from understanding*, has the following general structure: first a certain lemma gets

[7] Remember, in section 1.3 of the introduction it has been remarked that our intuitions are not always sacrosanct in the sense that they present the ultimate data for an account of communicative success, but that they might also be given up in the light of some theoretical considerations.

[8] See footnote 3 above for further explication of this notion of a Russellian singular term.

[9] For the sake of the argument I will accept in the following the assumption that a proposition must get expressed for referential communication to be successful, yet it should be acknowledged that it is in need of further justification.

[10] It should be noted that this argument for the claim that success in referential communication is object-dependent is at odds with Evans' claim discussed above that there can be success in quasi referential communication where nothing gets referred to. Although Evans at this point of the discussion does not distinguish between genuine and quasi referential communication it can be assumed that by 'referentially used singular terms' he meant those used in what he classifies as genuine referential communication, that is communication where the communicating agents do not engage in the form of pretence described above.

established, and then on the basis of it the intended conclusion (IC) gets derived by reductio. The crucial lemma on which Evans' argument rests is the following one: in order to be credited with understanding an utterance *P(t)* involving a referentially used singular term *t*, one must oneself believe that there is something to which *t* refers. More formally it can be stated as follows:

(1) For all *P(t)* [Understand(*P(t)*) --> Believe(Ex Refer(*t*) = *x*))]

where *x* is a variable for an object in the world. It is important to note that according to this lemma having a certain belief in the existence of a referent, let us call it *existence-belief*, is not just something which contingently accompanies the understanding of utterances involving referentially used singular terms but something which is constitutive for their understanding. In this sense it is quite a strong claim which has to be justified. Yet before going into Evans' justification for it, his full argument for the intended conclusion will be presented. My presentation will follow quite closely the one given by Boer (1990).

As mentioned already it is a reductio argument, that is the intended conclusion gets derived by showing that its negation leads to a contradiction. The reductio assumption is the following: with regard to an utterance involving a referentially used singular term, it holds that a referential content or proposition gets expressed, whether or not there is anything to which the singular term refers. This assumption can be stated more formally as follows:

(2) For a *P(t)* it holds: [¬E*x* Refer(*t*)=*x* & E*q* Express(*P(t)*,*q*)]

where *q* is a proposition or content. Plausible candidates for *P(t)* would be utterances of sentences like 'Santa Claus has a white beard' or 'This is a lake'; the latter uttered by someone who has a Fata Mogana of a lake without there being any lake. If (2) is true, then according to Evans it is also true that with regard to *P(t)* there is a true proposition such that knowledge of it constitutes understanding *P(t)*. For instance, as Boer (1990) has pointed out, it might just be the proposition that *P(t)* expresses a certain proposition *q* which according to (2) is true. For instance, with regard to the sentence 'This is a lake', it would be the proposition, let us call it *p*, that 'This is a lake' expresses the proposition *q*. Now this would not only be a true proposition but in addition knowing it would be constitutive for understanding the referentially made utterance, i.e. if I know what proposition 'This is a lake' expresses then I have understood the speaker. Thus more formally we have the following:

(3) E*p* [*p* is true & (Know(*p*) <--> Understand(*P(t)*)]

where *p* can be this more complex proposition regarding what proposition gets expressed by *P(t)*. Yet according to the above lemma (1) for understanding *P(t)* it is necessary that one believes *t* to have a referent, thus it follows:

(4) E*p* [*p* is true & (Know(*p*) --> Believe(E*x* Refer(*t*)=*x*)))]

With regard to the sentence 'This is a lake', one could state (4) by saying that there is a true proposition, namely the proposition that this sentence expresses another proposition q which one can only know if one believes there to be an object to which the demonstrative 'this' refers. But following the reductio assumption (2) that belief required for knowledge into *p* is false. For we have assumed in (2) that there is no object to which *t* refers. With regard to the sentence 'This is a lake' this would mean that there is a true proposition, namely the proposition that this sentence expresses another proposition q which one can only know if one has a false belief. In more general terms we can state this as follows:

(5) E*p* *p* is true & (Know(*p*) --> E*q* (*q* is false & Believe(*q*)))

But, according to Evans, "truth is seamless; there can be not truth which requires acceptance of a falsehood to appreciate" (p. 331) . Boer states this claim in the form of the following "axiom of the seamlessness of truth":

(6) ¬E*p* [*p* is true & (Know(*p*) --> (E*p'* *p'* is false & Believe(*p'*)))]

Clearly (5) contradicts (6), and thus we can infer the falsity of (2), i.e. the falsity of the reductio assumption which has lead to that contradiction. Thus its negation, the intended conclusion, must be true. Hence necessarily, if nothing gets referred to by *t* in *P(t)*, then *P(t)* expresses no content or proposition. As already stated above this claim supports a object-dependent account of referential communication as proposed by Evans.

The question is whether this argument from understanding, for the claim that referentially used singular terms are Russellian, is successful or not. In order to answer that question several points have to be clarified: first whether it is valid, which I think it is. And secondly whether its premisses are true. With regard to (6), the axiom of seaminglessness of truth which gives rise to the desired contradiction, I have some doubts for the same reasons as Blackburn (1984, p. 319) points out, yet I do not want to go in detail here. Most importantly I think that the crucial

lemma (1) on which the argument rests is false. It is here that Evans' argument fails, as I will show in the remaining parts of this section.

In his book he argues in detail for this lemma. Boer's reconstruction of Evans' argument rests on the following premisses from which he thinks the desired conclusion can be derived:

(7) If a hearer *H* understands a referentially intended remark *P(t)* then *H* possesses and brings to bear upon the interpretation of it certain information, for instance information with the content of being F_1, ..., F_n where these F_i are properties.

(8) If *H* brings to bear information upon the interpretation of *P(t)* then *H* believes that if what the speaker says is true then there exists an x such that $F_1(x)$, ..., $F_n(x)$ & $P(x)$.

(9) If *H* is justified in his belief that if what the speaker says by *P(t)* is true then Ex such that $F_1(x)$, ..., $F_n(x)$ & $P(x)$, then *H* believes that there exists an *x* such that *t* refers to *x*, or more formally: Bel(*H*, Refer(*t*) = *x*).

Before I consider the plausibility of these premisses, and in particular the claim that lemma (1) follows from them, let me first illustrate their contents. In this regard consider the following example: assume that someone says to you 'Bill Clinton plays the Saxophone'. Premiss (7) says that you cannot understand this referential remark without possessing and bringing to bear upon its interpretation certain information. On one hand you have to know what 'plays the Saxophone' is or means. But more importantly, and this is relevant here, for understanding a referential use of a singular term like 'Bill Clinton' you have to possess a certain information bundle "for that individual" and you have to bring it to bear upon the interpretation of this referentially used singular term. This could be the information bundle with the following contents:

{*being the current president of the US, being called 'Bill-Clinton', being white, being male, being the former governor of Arkansas*}

Now (8) says that to bring to bear an information bundle with these contents upon the interpretation of the referential remark 'Bill Clinton plays the Saxophone' is to come to believe that if this sentence is true, then there exists an object in the world such that it makes true all properties in the above set, and that in addition it also fulfills the property *being a saxophone player*. Finally, (9) says that one cannot be

justified in believing this unless one believes also that there exists an object to which the proper name 'Bill Clinton' refers, which has been called above existence-belief.

Premisses (7) and (8) seem quite plausible, in particular (7) has already been appealed to in the description of referring acts given in chapter 2. Yet clearly, from (7) and (8) alone the desired lemma cannot be derived. What is needed is premiss (9) which contains the respective existence-belief that occurs in lemma (1). Yet what I want to claim, contrary to what Boer seems to assume, is that even if one adds (9) to (7) and (8), lemma (1) cannot be derived. For assume that a hearer *H* understands a referentially intended remark *P(t)* which is the antecedent of the lemma. Then from (7) we can derive that *H* will bring to bear upon the interpretation of the use of the singular term *t* certain information, for instance information with the content of being F_1, ..., F_n where these F_i are properties. And from (8) we can further derive that *H* will believe that if what the speaker says is true then there exists an *x* such that $F_1(x)$, ..., $F_n(x)$ & $P(x)$. Yet the problem is that from (9) we cannot derive that he will also possess the assumed existence believe because its antecedent requires the hearer to have the *justified* belief that if what the speaker says is true then there exists an x such that $F_1(x)$, ..., $F_n(x)$ & $P(x)$, and not the belief simpliciter. Yet at this point of the argument we have only been able to derive that the hearer will have the belief simpliciter. One could also state this objection by saying that in order to derive the desired conclusion (9) would not be needed but instead the following premiss:

(9'): If the hearer *H* believes that if what the speaker says by *P(t)* is true then E*x* such that $F_1(x)$, ..., $F_n(x)$ & $P(x)$, then *H* believes that there exists an *x* such that Refer(*t*)=*x*.

Yet I do no see any reasons why this premiss should hold. For instance our cognitive processing system might simply be set up in a way such that whenever I bring to bear certain information with the contents of being F_1, ..., F_n on the interpretation of a referentially used singular term, I will also come to believe that if what the speaker says by *P(t)* is true then there exists an *x* such that $F_1(x)$, ..., $F_n(x)$ & $P(x)$. Thus it would not be necessary to believe also that there exists an *x* such that *t* is referring to *x*, or simply Refer(*t*) =*x*.

Evans' argument in favor of lemma (1) can only be saved by bringing in another premiss in addition to (7) - (9). In fact, I think that he makes use of such an additional premiss, namely of the following:

(10) The hearer's belief(s) on which understanding in referential communication rests must be justified.

Now given we add (10) to premisses (7) - (9), then we have a valid argument for the desired lemma. For (10) provides the link which connects premisses (8) and (9) in the required way. The question is whether the argument which results is successful. As I said above, premisses (7) and (8) strike me as plausible. Yet what I want to question are premisses (9) and (10). First I will argue that premiss (10), which is needed to make use of the former one, is implausible. And then it will be shown that even if the contrary were the case, another justification could be given as the one appealed to under (9). That is even if (10) were true, (9) does not seem to be true.

To start with, why does Evans think that in referential communication a hearer must be justified in his belief on which understanding rests, in particular in his belief which results from premiss (8)? In stating his argument he only says the following: "... we must go deeper, and ask not merely of the form of the belief, but about its justification" (p. 328). Clearly, as an explanation this won't do since Evans presupposes here simply that a justification of the hearer's belief is needed instead of telling us why it is needed. Nevertheless, I think that in the light of other general remarks previously made by him on the notion of understanding in referential communication it is clear why he thought that something like premiss (10) must hold. Right in the beginning when he talked about understanding in referential communication, Evans writes:

> "Let us suppose that a speaker utters a sentence containing an expression which has a conventionally recognized information-invoking role, and that it is clear that such a use in intended ... The audience must move beyond this, to the *right* (i.e. intended) interpretation. And if he [the audience] is to be credited with understanding, he must *know* that is is the right interpretation. For it is a fundamental, though insufficiently recognized, point that communication is *essentially* a mode of the transmission of knowledge." ('VR', p. 310)

Thus what Evans adheres to here is some sort of *epistemic constraint* on the notion of understanding which can be stated as follows: for a hearer to be credited with understanding a speaker's referential use of a singular term he must, besides coming up with the right interpretation, *know* that it is the right interpretation. That is, understanding in referential communication requires some sort of knowledge. Since knowledge is commonly conceived of as justified true belief it becomes clear why Evans accepts premiss (10) above; it just makes explicit the requirement for such a kind of knowledge. As I have argued in chapter 3 already, knowing that one

has come up with the right interpretation seems nice and useful but surely not required in order to be credited with understanding the words of speakers in communication. But clearly, if such knowledge is not required then there seems nothing in support anymore of premiss (10), above, and thus Evans' argument for the desired lemma (1) would fail.

What I want to show now is that even if one accepts this epistemic conception of understanding, the argument fails simply because Evans' premiss (9) is not right. This is the claim that a hearer will only be justified in his belief that if what the speaker says by $P(t)$ is true, then there exists an x such that $F_1(x)$, ..., $F_n(x)$ & $P(x)$, if he believes that there exists an x such that Refer(t)=x; I will call a belief of the form stated in the antecedent *belief**.[11] Now what I want to consider first is Boer's argument in favor of premiss (9). What he tries to make explicit is the "internal reasoning", as he calls it, on the basis of which one would derive a belief of the form belief*. This reasoning can be represented with regard to the referentially used remark 'Homer was born in Athens' as follows:

(11) True ('Homer was born in Athens') [supposition]
(12) True ('Homer was born in Athens')
<--> (Ex) [Refer('Homer')=x & Born-in-Athens(x)] [theorem]
(13) (Ex) [Refer('Homer')=x & Born-in-Athens(x)] from (11) - (12)
(14) Greek-Poet(r) & Author-of-Odyssey(r) & Author-of-Illiad(r) [premiss]
(15) r = Refer('Homer') [premiss]
(16) (Ex) [Greek-Poet(x) &Author-of-Odyssey(x)
& Author-of-Illiad(x) & Born-in-Athens(x) [from (13) - (15)]

Now, as Boer points out, even if there is no x which fulfills (16), one cannot avoid Evans' conclusion that there will be a belief on the hearer side into the existence of a referent of 'Homer'. For this belief would follow from the following principles:

(P1) If the hearer H is justified in a certain belief and H's justification is essentially based upon a certain argument, then every premiss H uses in that argument must express a proposition which H believes to be true;

(P2) If '(... r...)' is an English sentence which (in H's mouth) expresses a

[11] Evans obviously believes so when he writes: "The only possible justification of the belief that, if what the speaker said [by $P(t)$] is true, there is something which is F_1, ... , F_n and P is that it follows from a belief of the form 'The speaker is referring to r', together with a view as to how things stand with r." (p. 329) Note, the variables used by Evans have been replaced here by the ones used above.

proposition *H* believes to be true, then *H* will take the following sentence to express a true proposition '(E*x*) (...*x*...)'.

According to Boer the first premiss appears to be a truism and the second follows in virtue of one's understanding of the standard logical apparatus. But clearly, if a hearer's H justification for a belief of the form belief* consists essentially in (11) - (16), then it follows from (P1) and (P2) that H also will have a belief into the existence of the referent of 'Homer'. For he will, according to (P1), take (15) to express a true proposition and then, according to (P2), also believe that there is an x such that x is the referent of 'Homer'.

I take it for granted here that a justification for the hearer's belief* has to be given, and further that premisses (P1) and (P2) are true. Where I disagree with Evans and Boer is with regard to the assumption that (14) and (15) provide the only possible justification for belief*. For I think that another justification can be given which strikes me with regard to many cases as more plausible. This justification simply consists in the belief with the following content: whatever object is referred to by 'Homer' the properties *being a greek poet, being the author of the Odyssee, being the author of the Illiad* will hold true of that object. In more general terms this can be stated as the following premiss:

(17) (*x*) [Refer('Homer') = *x* --> Greek-Poet(*x*) & Author-of-Odyssey(*x*) & Author-of-Illiad(*x*)]

From (11) - (13) and (17) a belief of the form belief* can be derived, but in contrast to (17) this premiss is a general sentence and thus (P2) does not apply, i.e. no existence-belief would be implied by it.[12]

One might wonder whether there are not any objections against (17) as a possible justification of belief*. Could one not argue, for instance, that it is hard to see what justification might be given for (17) itself? This objection does not strike me as convincing. For on one hand one could ask the same question with regard to (14) and (15), and secondly the answers one would give in both cases would probably not differ much. I guess in both cases one would appeal to the fact that agents simply produce beliefs with such contents when certain cognitive processes take place. For instance with regard to (17) one would say that an agent will come to believe in it whenever a referentially used expression *t* gets resolved in a certain way, namely whenever it gets linked to a certain information bundle. For the information in this bundle will be invoked upon its interpretation in the sense of (17).

[12] In the derivation one would make use of the inference rule of existential instantiation.

To conclude then, Evans' argument for the crucial lemma fails, i.e. understanding a referentially used remark *P(t)* does not require a belief into the existence of a referent of *t*. For as it has been shown, two central premisses on which the argument rest seem implausible or even false. Yet if that is so, then Evans' whole argument from understanding for the general claim that referentially used singular terms are Russellian fails since it rests on that lemma. Accordingly, it also does not follow that success in referential communication must be object-dependent, that is our conflicting intuitions with regard to certain empty cases do not get undermined. In the following section I will now turn to Evans' second argument for the claim that communicative success in referential communication is object-dependent, namely the argument from unity as it has been called by Boer (1990).

3. Evans' Argument from Unity

In addition to the argument from understanding, Evans has put forward another argument by which he tries to establish that referential communication is object-dependent. Clearly, if this were true then there could be no understanding in those empty cases, at least not in those which are genuine cases of referential communication. Essentially Evans proceeds by showing that given certain constrains on referential communication "there is no other general way of stating the requirements for understanding" referential remarks than the object-dependent one which appeals "to the idea that there is an object of which both speaker and hearer are thinking" (p. 332). In the following I will state Boer's (1990) reconstruction of this argument which Boer has defended recently against criticism by Devitt (1985) and Blackburn (1984). Those latter authors have challenged Evans' claim that only an object-dependent account will satisfy these constraints by coming up with an alternative account, namely the so-called *causal source account*. Their account and its prospects will be discussed briefly later on.

According to Boer, central to Evans' argument is the following methodological principle:

(ComCon). "If information-based communication in the empty case (i.e., object-less case) is held to consist in the obtaining of some circumstances *C*, then *C* should be deemed to be at least a *necessary* condition for communication in the

non-empty case, where the parties' information *is* based upon the same object."[13]

As Boer notes, if this principle were not true, then the proposed account of success in referential communication would be non-unitary, in the sense of having the following form: a referring act is successful if and only if, (a) there is an object referred to and C_1 obtains, (b) there is no object referred to and C_2 obtains; where (a) does not imply that C_2 obtains. But he sees it as a "matter of methodology" that an account of success in referential communication should be unitary, and not, as he says, "an ad-hoc patchwork of disjuncts" (p. 62). Accordingly, Boer accepts (ComCon) as the first premiss in Evans' argument. That is we have the following:

(1) (ComCon) is true.

Using examples similar to those discussed in the previous chapter Evans shows that referential communication in the non-empty cases can succeed even if speaker and hearer are thinking of the referent in very different ways. We can state this as his second premiss:

(2) In non-empty cases referential communication can succeed even if hearer and speaker are thinking of the referent in very diverse ways.
From (1) and (2) it follows:

(3) An acceptable analysis of referential communication, or information-based communication as Evans also calls it, must (a) allow for the truth of (2) and (b) be compatible with (1), that is with the truth of (ComCon).

On the basis of (3) Evans, under Boer's interpretation, then argues for the following:

(4) Any account of success in referential communication which does not require the existence of a common object would flunk (3a) if it meets (3b).

Evans' argument for (4) is based on the assumption that "the only candidate communication-allowing relation, between the thoughts of speaker and hearer, which is discoverable in the absence of an object" is that they both purport to think

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[13] Although Evans does not state this principle explicitly, many passages suggest that he makes tacit use of it, for instance when he writes: "... the only candidate communication-allowing relation, ..., which is discoverable in the absence of an object ... is far too strong to impose upon referential communication in general." (p. 335-36)

of an object in exactly the same way or "purport to identify it in exactly the same way". Yet, since this relation does not capture the diversity in the ways of thinking in the non-empty cases, it is clear that it will not satisfy (3). Accordingly, claims (3) and (4) then yield the desired conclusion, which can be stated as follows:

(5) Any acceptable analysis of referential communication will make the *existence* of a common object a *necessary* condition for communicative success.

Clearly, if (5) holds, and one assumes that there is an account of success in referential communication, then there can be no success in those empty cases. Yet the question is whether this second argument for an object-dependent account of referential communication is convincing. Does it really establish that the existence of a common object is a necessary condition for the occurrence of success in referential communication? One central problem arises with regard to the methodological principle (ComCon). According to this principle an account of referential communication must be unitary in the sense that there are no distinct success conditions for the non-empty and the empty cases. The first thing to be noted is that Evans' overall account as discussed in section 1 is at odds with principle (ComCon) since his account is in an important respect not unitary. For it distinguishes between two kinds of referential communication, namely between genuine and quasi referential communication. In particular, what qualifies as a success condition for the quasi cases of referential communication which are empty is not assumed to be a necessary condition for the genuine cases, that is (ComCon) would not be satisfied. What can be said in defense of Evans' account is that this principle was supposed to apply only to the genuine cases of referential communication and not across the board to all different kinds of referential communication. For clearly, different kinds of referential communication will deserve different treatment. Evans' point simply is that cases of referential communication which are of the same kind, for instance cases of genuine referential communication, will have the same success conditions. Accordingly, what qualifies as a success condition for the empty cases of genuine referential communication should (at least) be a necessary condition of the non-empty cases of genuine referential communication.

One question that arises with regard to (ComCon) as understood in such a way is whether these problematic empty-cases of referential communication which are not cases of quasi-referential communication are really of the same kind as those where some objects are referred to. In the following chapter I will argue that the distinction between quasi and genuine cases of referential communication or between real world and let's pretend cases is really too coarse-grained. There are

cases in between which deserve a different treatment. But secondly, even if one accepts that those problematic empty-cases are of the same kind as the ordinary non-empty ones, one might wonder whether an account for them must be unitary as required by (ComCon). Obviously, it would be nicer if an account of success in referential communication were unitary in the desired sense. But if we cannot come up with such an unitary account, then a non-unitary one which captures our intuitions of communicative success in those empty cases would be more acceptable than one which rules out success here. For what motivates the unitary constraint, are mainly considerations of *simplicity* or *elegance* which should not be ranked higher than consideration of descriptive adequacy. Thus to conclude, I think the argument from unity fails because premiss (1), which it rests on, is not really plausible.

Another problem with Evans' argument arises with regard to premiss (4) which claims that *no other account* than an object-dependent one can meet premiss (3). For in establishing this claim he considers only one alternative account, namely what I have called the Fregean one in the previous chapter, which for communicative success requires the entertained modes of presentation to be identical. Yet who knows whether there is not some other account which satisfies (3). In fact, (4) will only follow if the possibility of there being some other overlooked alternatives has been ruled out. Since Evans fails to do this, his argument can at best be seen as formulating a challenge but not as establishing conclusively that success in referential communication is object-dependent.

In reaction to Evans' argument, several authors have tried to meet the challenge posed by it, namely to come up with an account of success in referential communication which on one hand is unitary and accounts for success in those empty cases, while on the other hand allowing for the diversity in ways of thinking in the non-empty cases. What has been proposed by by Devitt (1985), and also by Blackburn (1984), is what might be called the *causal source accounts* which make it at least a necessary condition for success in referential communication that the hearer's and speaker's respective thoughts have "the same ultimate source" (Devitt 1985, p. 220). That is, there has been an object or phenomenon from which the thoughts causally have originated or are historically derived from. Essentially, Evans' success condition for quasi referential communication gets applied by these authors to all cases of referential communication. This would allow one to account for those cases which posed a problem for Evans' object-dependent account, i.e. for those empty cases which did not qualify as cases of quasi referential communication. For instance in the Troy example where it was assumed that there has never been a city called 'Troy', communicative success can be explained by the fact that our underlying ideas are the product of the same "myth" which qualifies as

their source.

Despite these advantages over Evans' account it has been objected by Boer (1990, p. 63-67) that the causal source account nevertheless fails because it is unable to provide a unitary analysis of success in referential communication. For although sameness in causal source might be a plausible success condition for those empty cases it does not work for many non-empty cases. For there are such cases in which agents obviously succeed in referential communication but where their thoughts do not have the same source and thus cannot correspond. One counter-example Boer puts forward is the following (p. 66-67):

> "If A, leaving the Auto Show where he just spent the day, meets for the first time in weeks a friend B who is apparently (and actually) doing likewise, A might, after greeting B, say 'Did you see *that red Lamborghini*? ...' and B might respond with 'Yes, I did. ...'. Here A presumes in B, and accordingly invokes, stored visual information about the automobile deriving from B's recent experience of it; and B understand A's referential remark in virtue of bringing to bear upon its interpretation information of just this sort. There is nothing at all *recherche* about this case, and it would seem to be a counterexample to (NC). Apart from involving ultimate grounding in the same automobile, the details regarding the ... provenance of their respective bodies of stored visual information ... can be as *dis*similar as one wishes e.g., they saw it on different occasions at at different (disjoint) locations during the Show; they saw different, dissimilar-looking parts of it ..."

Thus according to Boer it is obvious that *A's* and *B's* thoughts have different causal sources and thus communication between *A* and *B* would be predicted to fail although following our intuitions they are communicating perfectly well. Thus the causal source account seems inadequate.

To this objection one might reply that A's and B's thoughts, although they are derived from perceptions of different locations of the red Lamborghini or from perceptions of different parts of it, still have the same source which simply is the Lamborghini itself. In fact this seems to be the reply that can be extracted from Devitt (1985) who seems to hold that the source of a thought is the object or phenomenon from which the thought causally originates or derives and in cases where something is referred to the source simply is identical with the referent. He states this as follows:

> "... the only difference between the empty and non-empty cases is that in the latter the source also qualifies as the referent." (p. 220)

But then it follows that A's and B's thoughts are also of the same object which would undermine Boer's critique of the causal source account. Prima facie, this

reply seems quite attractive since it allows us to hold to the methodological principle (ComCon) that an account of success in referring acts should be unitary. Yet I do not find it very convincing since it is highly ad hoc in the following sense: it builds the disjunctive clause it tries to avoid directly into the the notion of a thought's causal source that it crucially appeals to. Accordingly, the resulting account of communicative success is only unitary in a very superficial sense, yet not in the sense envisaged by Evans. For the analysis of the notion of a causal source in not unitary: what qualifies as a thought's causal source in the empty case does not qualify as its source in the non-empty case. Thus I think it is fair to say that such a general causal source account does not really meet the challenge posed by Evans' argument.

As has been argued above, it is questionable whether there is a challenge to be met. In the following chapter it will be argued that this is not the case. What I will show is that many of those problematic empty-cases of referential communication, for instance the Troy example, are not of the same kind as those which are clearly object-dependent. Thus on the basis of unitary-consideration it cannot be argued any more, as done by Evans, that the empty-cases must also be object-dependent. Different success conditions will apply to them than for instance to perceptual cases of referential communication, as the occur in the above Lamborghini example. In accounting for communicative success in cases like the Troy example appeal will be made to the idea of sameness causal source, i.e. for such cases to succeed speaker and hearer must entertain thoughts that have the same causal source. Yet this success condition will not be proposed as a general condition that is supposed to apply to all cases of referential communication as done by Devitt (1985); rather, it will have only a very restricted application. In developing such an account it has to be made more precise (a) what will qualify as a possible source of a thought, and (b) under what conditions a thought has a certain source. For instance what is meant by saying that a certain cultural myth qualifies as the source of our Troy thoughts? What is a cultural myth and what makes it the source of a thought? Neither Evans, who appeals to the idea of a thought having a causal source when discussing the question of success in quasi- referential communication, nor Blackburn or Devitt, who are in favor of a full-blown causal source account, address these questions in any detail. Before I turn to these matters let me briefly summarize the discussions of Evans' account.

In this chapter it has been argued that Evans' solution to the problem with those successful empty cases of referential communication fails. For neither do his two theoretical arguments, in favor of the claim that communicative success in genuine cases of referential communication is object-dependent, come through, nor does his attempt at accounting for the conflicting empty-case intuition by distinguishing

between genuine cases of referential communication and quasi or make believe cases succeed. Thus his overall account of referential communication fails because it is simply descriptively inadequate. This does not mean that one has to give it up completely. In fact, in the following chapter, an account of success in referential communication will be proposed, which in many respects resembles Evans' account.

7

An Alternative Account of Success in Referential Communication

In this chapter, a new account of success in referential communication will be proposed which circumvents the problems discussed in previous chapters. The account resembles, in two important respects, that of Evans: first, it is a *hybrid account* in the sense that a sort of external success criterion gets combined with a Fregean one. That is, for referential communication to succeed speaker and hearer must not only come to entertain thoughts that are externally related in the right way, but in addition they must also employ the right modes of presentation. Secondly, referential communication will, in certain cases, also be considered as *object-dependent*. In these cases speaker and hearer must entertain thoughts that are of the same object. Yet the new account also departs from Evans' one in crucial ways. To start with, a different Fregean success condition will be put forward which will allow us to avoid the problem of communicative significance as it arose in cases like the Hesperus-Phosphorus or the camera example. But more importantly, the distinction between cases of referential communication which are object-dependent and those which are not will be drawn along different lines. Evans distinguishes between *genuine* and *quasi* or *let's pretend* cases of referential communication. The former cases are considered by him to be object-dependent whereas the latter are not. I will argue in this chapter that Evans is right with regard to the let's pretend cases but not with regard to the remaining ones. They do not form a homogenous group as assumed by Evans, but different kinds have to be distinguished. First there are the *perception-based* cases in which one intends to refer an audience to an object one is currently perceiving or one has perceived before. Such cases will be considered as object-dependent. Yet there are also the *communication-based* cases

of referential communication, in which one intends to refer the audience to an object one has heard of from others. With regard to them the following disjunctive success condition will be proposed: the hearer must come to entertain an idea which refers to the real object which the speaker's underlying idea is of, or which relates to the *practice of object-pretence* that the speaker's underlying idea is related to.

The central task of the chapter is to make this new account of success in referential communication more precise. In the first part I focus on the proposed external success conditions for the different kinds of referential communication. In section 1.1 these conditions will be motivated in more general terms by appeal to a more fine-grained classification of referential communication. Then in section 1.2 those success conditions which appeal to the idea of agents' thoughts relating to the same practice of object-pretence will be made more precise. The analysis I come up with will be a sort of causal source account. It will be shown that on the basis of it the problematic empty cases can be accounted for. Then in the second part, I will turn to the Fregean side of the proposed hybrid account of referential communication, namely to the question regarding how the associated modes of presentation must be related such that referential communication is successful. First in section 2.1 the proposals by Evans (1982) and Recanati (1993) will be discussed, yet it will be argued that they both fail. They provide neither necessary nor sufficient conditions for communicative success. Then in section 2.2 an alternative Fregean success condition will be proposed. According to this condition speaker and hearer must attach to the speaker's referential use of a singular term modes of presentation which are compatible in an *action initiating way*. It will be shown that on the basis of this condition, communicative failure in cases like the Hesperus-Phosphorus or camera examples can be accounted for.

In developing this new account of communicative success I will make use of the mental state model of referential communication which has been adhered to so far. To be more precise, it is assumed that referential communication essentially involves the invocation of mental representations for particular objects, called ideas, which are associated with certain object-files. Further, the focus is on grounded referring acts which involve the invocation of what has been called grounded ideas, i.e. ideas that are taken to be grounded in some contact with their purported referents. And finally, with regard to those grounded referring acts where re-identification is required for communicative success, I assume that it is performed by the hearers.[1]

[1] For more details on this representational description of referential communication, in particular on the notions of a grounded referring act, a grounded idea, and re-identification see chapter 2 and chapter 3.

1. External Success in Referential Communication

1.1. Different Kinds of Referential Communication

One central problem which has resisted treatment so far is the problem concerning *empty cases*, where no real objects get referred to by the used referring expressions, yet understanding nevertheless occurs. Evans has tried to deal with those cases by appeal to a widely held distinction between two forms or modes of referential communication, namely what has been called the *real-world* mode on one hand and the *let's pretend* mode on the other.[2] His claim is that referential communication in the real world mode is object-dependent; and accordingly he speaks of *genuine* referential communication. Yet with regard to referential communication in the let's pretend mode a different success condition is supposed to apply. According to Evans this form of referential communication, which he calls *quasi* referential communication, will be successful only if the communicating agents' underlying thoughts have the same causal source. One of his central claims is that those problematic empty cases are usually cases of quasi referential communication, which, in principle then, allows him to account for the intuition that they can be successful. Yet as has been argued in the previous chapter, this solution fails since many of those successful empty cases do not qualify as cases of quasi referential communication. For communicative success can occur even if the communicating agents do not knowingly make use of empty referring expressions, which was supposed to be the distinctive mark of quasi referential communication. For instance referring acts involving the name 'Troy', which most of us believe to refer to an ancient greek city, can succeed even if it turned out that Homer's story about that alleged place had been completely made up by him.

Although Evans fails in providing a general solution to the problem with the empty cases, I think he is on the right track, namely by distinguishing between *object-dependent* cases of referential communication and *non-object-dependent* ones. The problem is that he does not draw the line between these different kinds of cases in the right way. According to his proposal, only those cases of referential communication where the communicating agents know that there is no referent, yet pretend there is one, are not object-dependent. All other cases are considered to be object-dependent. The question is, what really motivates this classification? In particular, why are all those other cases which do not involve the respective form of pretence considered to be object-dependent? Not only do our intuitions undermine this latter claim, but Evans' theoretical arguments in support of it fail as well, as has been shown in the previous chapter.

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[2] For more details on this distinction see chapter 1, section 3, or the first section of chapter 6.

Prima facie, there are two kinds of consideration which together support an account along Evans' lines, in particular the claim that all referring acts which do not occur in the let's pretend mode are object-dependent. One is the widely held assumption that all referring acts either occur in the real-world mode or in the let's pretend mode, which can be stated as follows:

Classificatory Assumption (CA): In performing a referring act a speaker either intends to refer the hearer to a real object or he intends to refer the hearer to an object that is merely pretended to exist knowing that it does not really exist.[3]

On the basis of assumption (CA) alone it does not follow that referring acts which occur in the real-world mode are object dependent, as assumed by Evans. That is, one cannot yet derive the claim that for a hearer to be credited with having understood such an act he must come to entertain a thought (or idea) that is of some real object. But in order to derive this claim it is only a short step. What one has to acknowledge is the intuitively plausible principle that an act of any kind is successful only if one achieves by it what one intended to achieve by it. For instance, if in turning the car key I intended to start the engine, then this act will have been successful only if the engine starts. This principle can be stated as follows:

Success Principle (SP): An act *A* performed by a subject *S* is successful only if *S* achieves with *A* what he intends to achieve with it.

Given that one accepts principle (SP) and the above classificatory assumption (CA) then it follows that referring acts which occur in the real-world mode are object-dependent. For what a speaker *S* in performing such an act allegedly intends to achieve is to refer the hearer to a certain real object which *S* has in mind. Accordingly, such an act will only be successful if the hearer in fact comes to think of the same real object that the speaker was thinking of when performing the act. Thus it seems that we have finally come up with an argument in favor of Evans' account of referential communication, in particular for his claim that empty cases like the Troy-example which prima facie occur in the real world mode are object-dependent. That is, in cases where one uses the name 'Troy' with the intention to refer to a real city and there is no real city referred to, there can also be no full understanding in communication.

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[3] Authors like Donnellan (1974), Parsons (1980), Searle (1969) or Wettstein (1984) make this assumption by distinguishing between cases of communication which are in the 'real world mode' and those which are in the 'let's pretend mode'. Yet it should be noted that some authors have also expressed reservation about the validity of this assumption, see for instance Martinich (1984).

Not surprisingly, this new argument in favor of Evans' account also fails. Yet seeing why it fails will point in the direction of a more adequate account of success in referential communication. The two assumptions the argument rests on are the classificatory assumption (CA) and the success principle (SP) above. Now, I think the problem with it lies not so much in the success principle (SP), which seems a quite plausible principle, but in the classificatory assumption (CA). This second premiss expresses the view that referring acts are always of one of two types; either the speaker intends to refer the hearer to a real object or he intends to refer the hearer to an object that has been pretended to exist although it does not really exist. What I want to claim is that although there are cases of referring acts which are of one of these two types, *many cases lie between them*. With regard to these cases it is not so clear whether the speaker intends to refer to a real object or to one which merely has been pretended to exist. Consider the case where one reads about a murderer called 'Smith' in a tabloid paper one takes to be not trustworthy, in the sense of not always reporting the truth. Further imagine that one engages in referential communication, with a friend who has also read the paper, by asking the following:

(1) Have you read the story about Smith, the cow murderer who killed 10 cows?

Now, by using the name 'Smith' in this question does one intend to refer one's friend to a real object or merely to a pretended object? Well, what seems most plausible to me is that one would use the name with both intentions, or better with the following complex one: one intends to refer one's friend to the real object the journalist had in mind when writing the story, or, if he made up the story, to the object the journalist pretended to exist.

It seems plausible that many cases of referential communication are of this mixed kind where the speaker uses a referring expression with such a *complex disjunctive intention.* This holds in particular for what might be called *communication-based cases* of referential communication, in which the speaker's underlying idea which he intends to reproduce in his audience has been acquired in communication. For in such cases there is always the possibility that the agent(s), from whom the idea and the representations in the associated object-file derive, has invented the object the idea purports to represent. In some communication-based cases we believe that this is the case and in others we do not, but since we can never really rule out this possibility it makes sense to attribute here such a complex disjunctive intention. Of course, agents who engage in communication-based cases of referring acts will not always express this kind of intention when asked what they intend to achieve by their acts. In fact, in many cases they will say that they intend to refer to a certain

real or existent object. Yet the important point seems to be that if they are confronted with this possibility, that their ideas are of no objects, then they will acknowledge this more complex intention.

In this respect communication-based cases of referential communication contrast with what can be called *perception-based* and *imagination-based* cases of referential communication. In cases of the former kind the speaker's underlying idea is linked to some current or previous object-perception, and it is his intention to refer the hearer to the real object he is currently perceiving or has perceived before. On the other hand in imagination-based cases the speaker's underlying idea is the product of his own or some shared imagination, and it is his intention to refer the hearer to the object that has been pretended to exist in such a way. These cases of referential communication correspond to what has been formerly called real-world cases of referential communication and let's pretend cases, whereas the communication based-cases somehow fall in between the two. For the perception-based cases and the imagination-based cases are performed with the respective real world and let's pretend referential intentions, whereas the communication-based cases are performed with a mixed disjunctive intention which contains both elements. The different referential intentions which underlie these kinds of referential communication can be summarized as follows:

(RI-1) In cases of perception-based referential communication it is the speaker's intention to refer the hearer to the real object that the speaker's underlying idea is of.

(RI-2) In cases of imagination-based referential communication it is the speaker's intention to refer the hearer to the pretended object that the speaker's underlying idea is of.

(RI-3) In cases of communication-based referential communication it is the speaker's intention to refer the hearer to the real object that the speaker's underlying idea is of, or, if it is of no real object, to the "pretended object" that the speaker's underlying idea is of.[4]

Although this new three-fold classification is probably still too coarse-grained, I think that it already offers the prospects for a more adequate account of success in referential communication which allows us to capture our intuitions of

[4] Later on it will be argued that speaking of pretended objects and assuming that agents' ideas can refer to them just presents metaphorical talk which is better avoided in accounting for referential communication. It will be replaced by some more precise and ontologically innocent terminology. Yet the classification of referring acts which has been proposed in terms of it will be maintained.

communicative success in those empty cases. For those cases are usually communication-based ones and their success conditions are not object-dependent, as I will show now.

Given one accepts the above success principle (SP), which makes it at least a necessary condition for the success of a certain act that in performing the act one achieves what one intended to achieve by it, then the following neccessary conditions for success of the three different kinds of referring acts result:

(C1) If a referring act is perception-based then it is successful only if the hearer comes to entertain an idea which is of the real object that the speaker's underlying idea is of;

(C2) If a referring act is imagination-based then it is successful only if the hearer comes to entertain an idea which refers to the same pretended object as does the speaker's underlying idea.

(C3) If a referring act is communication-based then it is successful only if the hearer comes to entertain an idea which refers to the real object which the speaker's underlying idea is of, or which refers to the "pretended object" which the speaker's underlying idea is of.

According to these conditions, referential communication would only be object-dependent in the perception-based cases, given that we understand by object-dependence that there must be some real object referred to as done so far. Cases of referential communication of the other two kinds would not be object-dependent. That this holds for the imagination-based cases has been acknowledged already by Evans, for these are the ones which usually have been referred to as cases of quasi-referential communication. Yet this also holds for the communication-based cases of referential communication, which under Evans' account would come out as being object-dependent. For they are performed with the above disjunctive referential intention and for this intention to be fulfilled there is not necessarily some real object referred to. Qua disjunctive referential intention it consists of two clauses, a real world clause and a let's pretend clause. For the real world clause to be fulfilled there must be some real object referred to but not for the other clause, and thus the fulfillment of the disjunctive referential intention is not object-dependent.

The overall account of communicative success which results is more liberal than Evans' account. This extra liberty allows us to account for the problematic empty

the previous chapter. For these cases are just communication-based cases in the sense that the communicating agents' underlying ideas have been acquired in communication and not in perception or imagination. For instance in the Troy-example our Troy-ideas have probably been acquired by reading Homer's Iliad or by listening to some people who have read this book. Now for communication-based cases to succeed there does not have to be a real object referred to, but only the above more liberal success condition must be fulfilled. My central claim is that this condition is fulfilled in the problematic empty-cases; more precisely, that the let's pretend part of the above success condition is fulfilled. That is, the hearer comes to entertain an idea which refers to the same "pretended object" as does the speaker's underlying idea. For instance in those cases where agents communicate by using the name 'Troy' but there is not a real city referred to, there will nevertheless be communicative success because the communicating agents' underlying ideas relate to the same practice of "Troy-pretence", which has been initiated by Homer's writings. Similar explanations can be offered for our intuitions of communicative success with regard to the other problematic empty-cases, for instance with regard to the newspaper example. Thus it seems that we have finally come up with an account which avoids the problem with these empty-cases.

As it stands this more liberal account of communicative success is quite vague and imprecise. For it is not really clear what the success conditions for the imagination-based and the communication-based cases consist in. What is meant by saying that for such cases of communication to succeed the hearer has to entertain an idea which refers to the same "pretended object" as does the speaker's underlying idea? Are there actually some objects referred to when such cases of referential communication are successful? Or is this just a nice metaphorical way of describing things which has no ontological implications? In accounting for discourse about fiction or let's pretend discourse both views have been adhered to. Authors like Searle (1969) or Parsons (1980) have appealed to fictional or unreal objects respectively, which like real objects can be referred to in referential communication. On the other hand, authors like Donnellan (1974) or Evans (1982) have taken a more conservative stance. They have argued that speaking of thoughts or utterances as referring to pretended objects just presents metaphorical talk which is better avoided. What has been proposed by them is to spell out the above success condition for discourse about fiction along the following lines: such cases of referential communication are successful only if the communicating agents' ideas have the same *causal-historical source*, in the sense, for instance, that they derive from the same film or from the same myth.

In the following section I will present an analysis of the success conditions for

communication-based and imagination-based referential communication which adheres to the latter *causal source approach*. That is, it will not be assumed that there are really some objects referred to in these cases of referential communication, but communicative success will be explained by appeal to the idea that the communicating agents' thoughts have in a certain sense the same causal-historical source. The central notion will be that of a *practice of object-pretence* which, quite generally speaking, is something agents can initiate and engage in, for instance by writing books, making films, inventing stories, etc. My proposal is that by saying that agents' ideas or thoughts refers to the same pretended object we mean that their ideas or thoughts relate to the same practice of object-pretence. The following section aims to make more precise what practices of object-pretence are and under which conditions agents' ideas or thoughts can be said to relate to them.

Although my analysis of the success conditions for communication- and imagination-based referential communication will be a sort of causal source account, it might also be relevant to those who take a "realistic" stance towards the notion of a pretended object. In order to see its relevance it should be noted that proponents of latter approach face the following two questions:

(A) What are these pretended, unreal or fictional objects that can be referred to?
(B) Under what conditions does an agent's thought or idea refer to an object of this kind?

The first question concerns the identity-conditions of these additional objects which we allegedly can refer to. The second question concerns the conditions under which reference to these alleged objects obtains. Most proposals which appeal to the idea of agents referring to certain fictional or unreal objects have been concerned with spelling out their identity conditions. An elaborate account in this regard has been put forward by Parsons (1980) who acknowledges unreal particular objects besides the real ones. Roughly speaking, particular objects of any kind are identified by him with sets of properties. The real objects are given by those sets which are realized by entities in the world, in the sense that they uniquely fulfill a certain set. On the other hand the various unreal objects are given by those sets which are not uniquely realized by entities in the world.[5]

Parsons' proposal answers question (A) above but not question (B) which concerns the conditions of reference. Given that there are such unreal objects, under which conditions does an agent's idea refer to one of them? In chapter 4 it has been argued that in accounting for mental reference to real objects appeal has to

[5] This is a very superficial description of Parsons' account. For more details see his various writings, in particular his 1980 book 'Nonexistent Objects'.

be made to causal factors. In short, what has been proposed is that an idea *i* will only refer to an object *o* if *o* has played some causal role in *i*'s production. Now the problem which arises if one allows for reference to fictional or unreal objects is that they cannot stand at the beginning of such a causal chain because objects of this kind, which are abstract and not concrete, simply do not enter the causal order. Parsons (1980) acknowledges this problem yet he argues that the causal accounts of reference have been mistaken in thinking that "... the referent ... must itself be a causal agent in the chain"(p. 121). What he suggests is that at the beginning of the relevant causal chain must only be something which "exemplifies" the object the representation is of. In case of real objects this something will be some concrete entity which instantiates the set of properties that real objects are identified with. Yet the crucial question is, which entities exemplify unreal or abstract objects? Parsons does not answer this question in any satisfactory way. He simply speaks of novels or myths as exemplifying certain unreal objects like Sherlock Holmes or Pegasus. The account of practices of object-pretence presented below can be seen as offering an answer to this question, in the following sense: practices of object-pretence are the entities which exemplify unreal objects. And further, an idea *i* will be of an unreal object *o* only if *i* causally originates in elements of a practice of object-pretence which exemplifies *o*. In this respect it might be said that the causal source analysis presented below has some relevance for those who take a realistic stance towards the notion of a pretended object. In the following section I will not go into more detail regarding the relation between the two approaches, but the analysis presented below will be conceived of as a causal source analysis. To those who are in favour of the other approach it should be clear by now what use they might make of the proposed analysis.

1.2 Agents Relating to Practices of Object-Pretence

Agents can initiate and engage in *practices of object-pretence*. In the most typical case an agent *imagines* a certain object "about" which he then pretends to talks to other agents in referential communication. This can be done in the *fictional mode* where it is made explicit that the used referring expressions have no real object as referents, as well as in the *realistic mode* where the "object-pretender", so to speak, makes his audience believe that there is a real object referred to. For instance a journalist who invents a story about an alleged cow murderer will usually report it in the realistic mode. In fact, since newspapers are usually meant to report the truth, the realistic mode does not have to be made explicit by the journalist. On the other hand, a novelist who comes up with a story involving a certain person might make

hand, a novelist who comes up with a story involving a certain person might make it quite explicit that there has never been such a person, for instance by letting the story take place in the future or by starting it with the words "once upon a time there was ..." It should be noted that such a story can also be imagined or made up by more than one agent; for instance several journalists can make it up together.

So far I have only illustrated the notion of a practice of object-pretence. The question is whether it can be made more precise in some way. What I want to propose is the following: a practice of object-pretence (POP) is identity-dependent on the *underlying ideas* of the agents who started out with the respective object-pretence and on the *standard* they have set for the object they pretend exists. By standard set for the pretended object I simply mean the properties which the pretended object is assumed to have. In order to simplify the discussion, I will in the following identify practices of object-pretence with the ideas and the standard they are identity-dependent on. For instance, in the case where a journalist has imagined a certain cow-murderer, the respective practice of object-pretence would then be given by the journalist's underlying idea and by the properties which he imagines the pretended cow-murderer to have. For simplicity, practices of object pretence will be represented by tuples $<I, ST>$ where I consists of the relevant underlying ideas of the agents who started out with the practice, and ST is the set of properties which sets the standard for the object pretended to exist by them. For instance the cow-murderer practice set up by a journalist then can be represented as follows:

$POP_{\text{cow-murderer}} = <\{i\text{-Baker}\}, \{\textit{being a man}, \textit{being the murderer of 10 cows in Yorkshire in 1995}, \textit{being 27 years old}, \textit{being called 'Smith'}\}>$;

where Baker is the journalist who invented the cow-murderer. Note, in the case where two journalists imagined this cow-murderer together, there would be simply two ideas which filled the first parameter of this tuple, that is we would have:

$I = \{i\text{-Baker}, i'\text{-Jackson}\}$;

where Baker and Jackson are the journalists who imagined the story. In what follows I will call the ideas of those agents which make up a practice of object-pretence the *grounding ideas*. For instance i-Baker is the grounding idea of the

practice $POP_{\text{cow-murderer}}$.[6]

Other agents' ideas can relate to practices of object-pretence in the sense that they purport to represent the objects that have been pretended to exist by the relevant practices of object-pretence. For instance a reader of the cow-murderer story will acquire an idea which relates to the above practice of object-pretence. This raises the question concerning the conditions under which an idea can be said to relate to a certain practice of object-pretence. What must be the case in order that an idea *i-S* of an agent *S* relates to the above practice $POP_{\text{cow-murderer}}$? What I want to propose as a necessary condition is that the idea *i-S causally derives* from one of the grounded ideas of the practice, which in this case would be Baker's idea *i*-Baker. That is, *S* will think only of the alleged cow-murderer that has been pretended to exist by the journalist Baker if his underlying idea causally derives in some way from the journalist's underlying idea. Likewise, you will think only of the alleged detective Sherlock Holmes that has been pretended to exist by Conan Doyle if your underlying Holmes idea in some way causally derives from Doyle's respective idea. For instance, if someone else had imagined a figure with the same name from which your underlying Holmes idea causally derives then you would not think of the Sherlock Holmes that Doyle pretended to exist, or to put it differently, you would not relate to the practice of Sherlock-Holmes-pretence which was initiated by Conan Doyle but to a different practice of object-pretence.

But what does it mean for an idea to derive causally from another agent's idea that belongs to the grounding ideas of a practice of object-pretence? What I want to propose is the following analysis which resembles the one for mental reference to real objects argued for in chaper 4:

Definition 1: An idea *i* causally derives from the grounding ideas of a practice $POP = \{I, ST\}$ of object-pretence if and only if these grounding ideas are the causal sources of (most of) the representations $r_1, \ldots, r_n$ that make up the object-file associated with *i*.

Clearly, this definition rests on the notion of a grounding idea *i'* being the source of a representation *r* relative to the object-file to which *r* belongs. This notion can be

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[6] It should be noted that practices of object-pretence $<I, ST>$ do not claim or presuppose the existence of some pretended, unreal or fictional objects. The only entities they are based on are agents' ideas, given by *I*, and sets of properties, given by the standard *ST*. Nevertheless, those who follow Parsons (1980) in identifying unreal objects with sets of properties might conceive of the properties given by standard *ST* of the practice as an unreal object. Or more precisely, it might be said that a practice of object-pretence $<I, ST>$ exemplifies that unreal object *o* which is identical with the set of properties given by *ST*.

explicated as follows:

Definition 2: A representation *r* belonging to the object-file associated with an idea *i* has a certain grounding idea *i'* of a practice *POP* = *{I, ST}* as its source if and only if

(a) *r* has been added to the object-file in the course of referential communication with a speaker involving a referential remark *P(t)*,

(b) the grounding idea *i'* is the idea which underlies the speaker's remark *P(t)*, or otherwise the speaker's underlying idea itself causally derives from *i'*.

Note that clause (b) in this definition involves a recursive element. The reason is, that in many cases our ideas will not directly derive from the grounding ideas of some practice of object-pretence, but derive from them only in a mediated way. For instance my Sherlock Holmes idea does not directly derive from the person who invented this figure, but only in a mediated way through the stories of my parents, etc. That is, the representations that make up my Sherlock Holmes object-file do not have Conan Doyle's grounding idea of the Sherlock Holmes practice of object-pretence as base idea, but some other ideas, for instance certain ideas of my parents. My Sherlock Holmes idea nevertheless originates in the right grounding idea because my parents' ideas ultimately originate in them.

It might be asked whether the resulting condition for an idea *i* being causally related to the grounding idea(s) of a practice of object-pretence *POP* = *<I, ST>*, does not already present a sufficient condition for *i* being related to *POP*. I do not think so, for reasons similar to those explaining why an idea being causally related to an object does not present a sufficient condition for the idea referring to the object.[7] Imagine that you read a made up story under the influence of certain drugs, for instance the story about the alleged cow-murderer Smith that derives from the above practice of object-pretence $POP_{cow\text{-}murderer}$. Instead of acquiring a new idea *i* with an object-file that comprises of representations with contents like *being called 'Smith'* or *being the murderer of ten cows* you come to associate with *i* representations that have the following contents:

Sat(*i*) = {*being a cow, being owned by someone called 'Smith', being the murderer of ten men*}

Now, I think it is not plausible to say that you relate to the practice of object-pretence $POP_{cow\text{-}murderer}$ in the right way, even if your idea causally derives

[7] See chapter 4 in this regard, in particular sections 2 and 3.

from the idea of the journalist named Baker who set up the practice. The problem is that you do not think of the object he pretended to exist in accordance with the standard set by him for this alleged object. In order to do so it seems that the following satisfactional condition has to be fulfilled: you have to possess some *general categorial representation* which specifies the kind of object you are thinking of in accordance with the standard of the practice. For instance according to the standard of the practice $POP_{cow\text{-}murderer}$ above, the object pretended to exist is a man whereas you think of it as a cow. Obviously, this is not in accordance with the standard and thus you cannot be said to be related to $POP_{cow\text{-}murderer}$. The proposed satisfactional condition mirrors the one proposed in chapter 4 for mental reference to objects. In fact, what I want to suggest is that mental relatedness to practices of object pretence is, like mental reference to objects, also a *matter of degree* . In particular, an idea *i* will be related to a practice of object-pretence $POP = \langle I, ST \rangle$ to a *low degree* if and only if (a) *i* causally derives from the grounding ideas *I* of *POP*, and (b) there is a general categorial representation associated with *i* which matches the standard *ST* set by *POP*. On the other hand, an idea *i* will be related to a practice of object-pretence $POP = \langle I, ST \rangle$ to a *high degree* if and only if (a) and (b) are fulfilled with regard to *i*, and in addition the representation associated with *i* uniquely matches the standard *ST* set by *POP*.

The analysis presented so far is only a first step towards an adequate account of practices of object-pretence and of agents being related to such practices. For as it stands it has various limitations. One serious limitation is that it conceives of a practice of object-pretence as something stable which at one point comes into existence and then remains the same. Yet in many cases the situation seems more complicated in the sense that practices of object-pretence can change over time, or different practices of object-pretence can merge into one, or one such practice can develop into different ones. For instance these situations seem to occur quite frequently in the case of myths. Myths usually develop over time. Also different myths, for instance of certain alleged gods, can turn into one. Also one myth can develop over time into different ones. For instance the Santa Claus myth that Americans today adhere to seems to be different from the one that can be found in Germany today, although both myths have originated from the same Santa Claus myth. In the following I will leave these problems aside - tackling them would be beyond the scope of this work. I think that the analysis as it stands already allows us to capture the problematic empty-cases discussed in previous chapters. There might be cases which it cannot capture in its present form, yet it gives us an idea how they might be captured.

The account of mental reference to particulars proposed in chapter 4 and the

account of mental relatedness to practices of object-pretence developed above make the necessary conditions for success in referential communication (C1) - (C3), which have been proposed in section 1.1, more precise. As has been argued before, what distinguishes the resulting account of communicative success from the one proposed by Evans is that more cases of referential communication are considered not to be object-dependent. Evans argued that only those imagination-based cases are considered to be non-object-dependent whereas under the above account the same holds for the communication-based cases. It was proposed that for them to be successful the communicating agents must entertain ideas that are of the same object, or if their ideas are of no object, then they must be related to the same practice of object-pretence. Now I think that on the basis of this success condition those empty cases can be handled for which brought Evans' account into trouble.

In this regard, consider first the Troy-example where it was assumed that our previous referential uses of the name 'Troy' have been empty because the whole story of the Trojan war had entirely been made up by Homer. As was remarked before, we are nevertheless inclined to think that we would have understood our referential uses of the name 'Troy'. This intuition can now be accounted for as follows: qua communication-based cases of referential communication these uses of the name 'Troy' are successful because our underlying Troy-ideas would have been related to the same practice of object-pretence, namely to the one set up by Homer. That is, first our underlying Homer-ideas causally derive from the grounding idea(s) of the Homer-practice, secondly we think of Troy as being a city in accordance with the standard set by the practice, and thirdly the object-files associated with our ideas uniquely match the standard set by the practice. The same story can be told with regard to those communication-bases cases where different agents acquire their ideas by reading the same made-up story in the newspapers, for instance the cow-murderer story. Here as well, they would understand each other in communication when later using the name 'Smith', namely in virtue of the fact that their underlying ideas are related to the same practice of object-pretence initiated by a journalist.

The empty cases of referential communication considered so far have all been accounted for by the above success condition (C3), which concerns communication-based referring acts, that is those referring acts where the communicating agents entertain ideas which they have acquired in communication. In principle, only this condition and condition (C2), which concerns imagination-based cases of referential communication, allow us to handle such empty cases. Whereas condition (C1), which concerns perception-based cases, is unsuitable in

this regard. For according to this latter condition communicative success is assumed to be object-dependent in cases where the communicating agents intend to refer their audience to an object they have perceived before or to an object they are currently perceiving. One might wonder whether this latter condition is not also too strong as it stands. For are there not also empty perceptual cases of referential communication which, according to our intuitions, are successful? Remember the case of the two astronomers who, while looking through their faulty telescope, think they have spotted a new planet, although it is only a misperception resulting from a defect in their optics. What might be proposed here is that in talking to each other about this alleged planet which they believe themselves to be observing, they can also initiate something like a practice of object-pretence, which other agents can relate to later on. For instance the astronomers might report their new discovery to others, who may themselves talk about the new planet. Accordingly these 'receiving' agents will succeed in referential communication because their underlying ideas, which they have acquired in communication, relate to the same practice of object-pretence. They do not present a problem for success condition (C1), but our two astronomers do. For it seems that they can also talk to each other about the discovery they think they have made. Imagine, two days later one of the scientists says to the other:

(2) Have you spotted the new planet again?

The problem is that prima facie this use of the singular term 'the new planet' is perception-based and thus the astronomers would not understand each other, given there is no planet referred to. Yet it seems they can understand their referential uses of this and similar referring expressions.

This intuition can be accounted for as well, namely by acknowledging that many perception-based cases are not purely perception-based, but also partly communication-based. For it is not always the speaker's sole intention to refer to the object which one takes oneself to have been perceived, but also to the object which one has talked about in previous conversations. Accordingly, the more liberal external success condition also applies to such cases. That is, they are successful only if the hearer comes to entertain an idea which is of the object that the speaker's underlying idea is of, or it relates to the same practice of object-pretence. And, according to this criterion, the astronomers would understand their use of 'the new planet' above, since they are related to the same practice of object-pretence which has been initiated by themselves. In fact, the only cases to which this more liberal success condition does not apply are those, I think, where one

intends to refer to an object one is currently perceiving, and about which one has not talked or communicated in another sense before. These cases are the only ones where communicative success comes out to be object-dependent.

Although more work has to be put into developing this account of success in referential communication, it has been shown that it offers the prospect of capturing our intuitions regarding the empty cases. That is, we can explain communicative success despite the fact that in these cases no object is referred to. Yet unfortunately, the proposed conditions for success in referential communication give us only half of the story. For they only seem plausible as necessary conditions but not as sufficient ones. The Hesperus-Phosophorus example and similar cases demonstrate this. In addition, it seems, the communicating agents must associate with their entertained ideas the right modes of presentation. This raises the question, under which conditions are the associated modes of presentation 'right', or to put it differently, in what way must they be related for referential communication to succeed? This question will be discussed in more detail in the following section.

2. Entertaining the Right Modes of Presentation in Referential Communication

Evans (1982), and later Recanati (1993), who both adhere to an object-dependent account of referential communication, acknowledge that entertaining thoughts that are of the same object will not always be sufficient for communicative success. Evans is particularly concerned with examples involving certain indexical expressions. He writes with regard to uses of the demonstrative 'this':

> "... in order to understand an utterance, 'This man is *F*', said of a man in the shared perceptual environment, the hearer would need not merely to make *some* connection with information about the man, but to make a connection with the information he is currently receiving from the man in *perception* ..." (p. 313)

Likewise, with regard to uses of the pronoun 'you', he makes a similar point:

> "If a speaker addresses a remark to someone, saying 'You are a crook', it is surely clear that an identification is called for on the part of the audience ... But it is also clear that a specific *kind* of identification is called for; the person addressed has not understood the remark unless he realizes that the speaker is saying that *he* is a crook." (p. 314)

Note that this example resembles the camera example discussed before where a person addressed another person on the street by saying 'You have lost a bag'. There it was also said that in order to be credited with understanding the use of the pronoun 'You', the person addressed must come to think of *himself* as the one who has lost a bag.

Recanati motivates the appeal to Fregean modes of presentation in his account of referential communication by looking at the train-man example by Loar (1976) which has been discussed in chapter 5. In the example Smith and Jones are together on the train to work. Further, they are unaware that some man being interviewed on television is someone they see on the train every morning about whom, in that latter role, they have just been talking. Smith says 'He is a stockbroker', intending to refer to the man on television, yet Jones takes Smith to be referring to the man on the train. Now with regard to this example Recanati (1993) writes:

> "... the referent in question must be thought of under a particular mode of presentation for the utterance to be correctly understood." (p. 58)

It should be clear that these kinds of examples also pose a problem to the *more liberal* external success conditions as proposed in the previous sections. For the single requirement that these conditions make with regard to cases in which the communicating agents entertain ideas that are of an object, is that they are of the same object. Thus in the above Jones-Smith example, Jones would have understood Smith's use of the pronoun 'he' given he had identified the right referent, but that seems counterintuitive as acknowledged by Loar and Recanati. More generally speaking, although the more liberal external success conditions allow us to avoid the problem of communicative success without reference, the problem of communicative significance, as it was called before, remains unsolved. In order to get rid of this problem, I believe that indeed Fregean modes of presentation have to be appealed to, as suggested by Evans and Recanati. That is, for referential communication to succeed the communicating agents must not only entertain ideas that are externally related in the right way, but the hearer must also entertain it under the 'right' mode of presentation, at least in some cases. Clearly, the crucial questions that arise with regard to such a proposal are the following ones: first, in which cases of referential communication do the hearers have to entertain modes of presentation? Do they only sometimes have to think of the referent in a certain way, or must they do so in all cases? And secondly, which modes of presentation do they have to entertain? Does this depend on the respective context, or is there a general constraint on the entertained modes of presentation which applies to all cases? In the following I will look at the proposals by Evans

and Recanati, yet unfortunately they will both turn out to be unsatisfactory. In a sense they require too much from the hearer in order to be credited with understanding the speaker, but in another sense not enough. For the constraints they impose on the entertained modes of presentations neither seem to be sufficient nor necessary. In the light of these problems, an alternative Fregean success condition will be proposed, which will fare better in this regard.

2.1 Evans' and Recanati's Fregean Success Conditions

According to Evans, coming to entertain a thought or an idea under a certain mode of presentation is, in a sense, a by-product of the epistemic constraint which he imposes on success in referential communication. This is the constraint that the hearer, in order to be credited with having understood a referring act by a speaker, must come to *know* the referent the speaker intended to talk about. That is, the hearer must not only come to entertain a thought that is of the right object and believe that it is of the right object, but in addition he must also be justified in believing so.[8] Let us assume for a moment that this constraint holds and see what Evans derives from it. The first thing he notes is the following:

> "A speaker who is to say something by uttering a sentence containing a referring expression must make it manifest which object it is that he intends to be speaking about - which object an audience must think of in understanding the remark." (p. 311)

Now as he continues, a very important factor in this regard is "the choice of the referring expression". He writes:

> "The conventions governing referring expressions are such that, as uttered in a context of utterance, they are associated with a property which an object must satisfy if it is to be the fully conventional use of that expression in that context; I call such a property *'the referential feature* which the expression conventionally has in that context'." (p. 311)

Here are the example expressions from chapter 1 with the referential features they are assumed to have:

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[8] This constraint has already been discussed in the previous chapter in the context of Evans' argument from understanding. As I have argued there, I do not see any reason why the constraint has to be fulfilled. Clearly, knowing that one has understood the speaker is nice but it seems that one can understand the speaker without knowing that one has.

'I'	*being the person making that utterance*;
'you'	*being the person addressed in that utterance*;
'he'	*being a salient male person;*
'this F'	*being a salient object that is F;*
'NN'	*being the object named or commonly called 'NN'*.[9]

Essentially, what he calls the referential feature of an expression is what others have called its *linguistic meaning* or *character*. Now according to Evans, it is the referential feature of a use of a singular term *t* which determines the kind of thought the hearer must come to entertain in order to be credited with understanding *t*. For instance, in order to be credited with understanding a use of the pronoun 'you', the hearer must come to think of the referent as the person being addressed by that use. Or in order to be credited with understanding a use of a name 'NN', the hearer must come to think of the referent as the person named 'NN'. Evans states this more generally as follows:

> "... the speaker manifests the kind of thought he expects of his audience by the way in which he manifests which object the thought is to concern." (p. 313)

It should be noted that one can accept this proposal without accepting Evans' epistemic constraint. Given we identify the mode of presentation 'grasped' by an idea with the satisfaction set of the idea as determined by its associated object-file, then the success condition which the proposal yields can be stated as follows:

Evans' Fregean Success Condition: For a hearer to be credited with understanding the use of a singular term *t* he must come to entertain an idea which has the referential feature of *t* in its satisfaction set.[10]

Note, this condition applies to all cases of referential communication and not only to certain specific cases, yet the respective modes of presentation will differ from case to case depending on the respective referential feature of the used singular term. The question is whether by augmenting a purely external account of success in referential communication with this Fregean success condition, the problem of communicative significance vanishes. And further, does the resulting hybrid account face no other problems? This account would run as follows: For a hearer *H* to be credited with understanding the use of a singular term *t* by a speaker *S*, *H*

[9] See Evans (1982), p. 311-16.

[10] The satisfaction set of an idea *i* was introduced as the set of all those properties which the representations that make up *i*'s object file are of; see chapter 2, section 2 for more details on this notion.

must come to entertain an idea *i-H*, which (a) refers to the same object (or relates to the same practice of object-pretence) as does the speaker's underlying idea, and which (b) has the referential feature of the used singular term *t* in its satisfaction set.

Prima facie one might think that this hybrid account allows one to get around the problem of communicative significance. Consider the Hesperus-Phosphorus example from chapter 5 where Brutus intended to make Rufus entertain a thought involving his Hesperus-idea by uttering 'Hesperus is very bright today', yet where Rufus only came to entertain a thought involving his respective Phosphorus-idea. Now our intuition was that Rufus would not have understood Brutus if he simply had entertained this idea, although it would have had the same referent as Brutus' Hesperus-idea, namely the planet Venus. This intuition of failure in communication can be accounted for under the above hybrid account since Rufus' Phosphorus-idea will not have the referential feature of the name 'Hesperus' in its satisfaction set, which is the property *being called 'Hesperus'*, but only the referential feature of the name 'Phosphorus'. Thus the Fregean condition (b), above, would not be fulfilled, and Rufus would not have entertained the right mode of presentation of the referent. Hence it seems that we have come up with an account which does not face the problem of communicative significance.

Unfortunately this is not the case, because what works for this example does not work for the others which gave rise to the problem of communicative significance. For instance, Jones failure of understanding Smith's utterance 'He is a stockbroker' cannot be explained in a parallel way since both, the person in the train as well as the one on television, are male persons which have been salient in the context of the utterance, thus both ideas will have the referential feature of 'He' as elements in their satisfaction sets. Even more problematic is the camera example where a person says to you on the street 'You have lost your bag', and you recognize the person being addressed on a TV screen which shows the people passing by, but you do not recognize that it is you who is being addressed. In this case you come to entertain an idea which is of the right object and which has the referential feature of 'You' in its satisfaction set, namely the property of being the person addressed in that utterance. Yet nevertheless it is not the right idea in order to be credited with understanding the utterance. For you do not entertain your *self-idea* as it might be called, or you do not think of the referent under the *self mode of presentation* which intuitively would be required for understanding the utterance. Thus the problem with the above hybrid account is that it is still does not provide sufficient conditions for success in referential communication. The Fregean success condition, as suggested by Evans, can avoid the problem of communicative significance with regard to some cases, but not with regard to all, and thus it is not

satisfactory.

One might think that the natural solution to this problem is to strengthen the Fregean success condition. In fact, this route has been pursued by Recanati (1993) who not only requires for success in referential communication that the hearer comes to think of the referent under the referential feature of the used singular term, but further, that he comes to think of it under the mode(s) of presentation that the speaker *intended* to communicate. He illustrates this point with regard to Loar's Jones-Smith example as follows:

> "In Loar's example, the mode of presentation which the speaker intends to communicate involves the concept 'man on television' even though the demonstrative pronoun 'he' conveys only the notion of some male person presumably salient." (p. 57)

The Fregean success condition which results can be stated more generally as follows:

Recanati's Fregean Success Condition: The hearer must come to entertain an idea that has the referential feature of the used singular term *t* in its satisfaction set and, in addition, at least in some cases, also certain other properties which the speaker intended to convey.

On the basis of this condition, the Jones-Smith example can then be handled as suggested by Recanati above. Thus it seems that we have come up with a solution to the problem of communicative significance.

Unfortunately, there is another severe problem which undermines Recanati's as well as Evans' proposals regarding the modes of presentation hearers are supposed to entertain in order to be credited with understanding referential uses of singular terms. The problem simply is that the Fregean success conditions which they propose are far too strong. Hearers quite often understand the referential uses of singular terms, although they do not come to think of the referents in a way intended by the speakers (against Recanati) and not even in accordance with the referential features of the used expressions (against Evans and Recanati). That the latter is not always the case can be shown quite easily I think. Consider in this regard the following version of Donnellan's famous Martini-example: someone says to another person at a party:

(3) Who is the/this man drinking a martini?

It seems plausible that one can understand the referential use of 'the/this man drinking a martini' even if one knows that there is no martini in the glass and accordingly does not come to entertain an idea which has the referential feature of this singular term in its satisfaction set. For instance, the hearer might have organized the party and know that there is no martini available, which is not something the speaker knows. Likewise, consider the case where a child uses the name 'Peta' to refer to someone called 'Peter'. Now you can also come to understand the child's referential use of 'Peta', although you will not come to entertain an idea which has the referential feature *being called 'Peta'* in its satisfaction set. These examples point at a fairly general phenomenon, namely that agents can come to understand the referential uses of singular terms in communication, although they know that the purported referents do not satisfy the referential features associated with these terms (relative to their uses). In such cases they will not come to think of the referents as having or instantiating these features, and hence a success condition like Evans' or Recanati's which requires this seems highly unsatisfactory.[11] Thus, the specific choice of the referring expression does not determine the mode of presentation the hearer has to entertain as envisaged by Evans and Recanati. Rather they should be thought of as different tools speakers have in enabling hearers to perform the right re-identifications. In many cases, the hearers will exploit these tools provided by the speakers, yet in other cases they will also make use of other tools.

One might think that what survives this criticism is Recanati's success condition stripped of Evans' elements, which then would run as follows:

The hearer must come to think of the purported referent in the specific way *intended* by the speaker, which does not necessarily have to be verbally expressed.

On the basis of this condition one could account for the Martini-example by saying that the speaker intended the hearer to think of the purported referent as someone holding a *martini glass,* which the hearer actually came to do, and not as someone drinking a martini. Unfortunately, I believe that this condition also fails. To start with, as it stands it is fairly vague and imprecise. What are the relevant modes of presentations, intended to be conveyed by the speaker, which the hearer has to entertain? It seems clear that the speaker cannot intend the hearer to entertain exactly the same mode of presentation that he is entertaining, since then referential

[11] Cases in which hearers manage to resolve such mistaken uses of singular terms have been studied empirically as well as computationally; see in this regard for instance the work by Clark (1992) or Kronfeld (1986).

communication would fail in almost all cases.[12] But then, there must be certain parts or aspects of them which are more relevant than others, but which are they? The problem is that they cannot be too specific since, if they were, it would always be possible to construct cases where the hearer does not come to entertain them, yet where we are nevertheless inclined to say that he understands the speaker. For instance, in the martini glass example the hearer could come to understand the speaker although he neither thinks of the purported referent as drinking a martini nor as holding a martini glass. The hearer might come to think of the purported referent as holding a wine glass, or simply as being Peter who is the only man invited to the party. In that case it would not even be necessary that the hearer identified him perceptually, which one might think is one of the speaker's intentions. Here, re-identification by the hearer would simply be based on some general background knowledge, namely the knowledge that Peter is the only man invited to the party and thus he must be the referent of the speaker's singular term which has the referential feature *being a man* as constituent or element. Now, why not take these very general modes of presentation as the relevant ones that the hearer has to entertain for referential communication to succeed? Well, the problem with them is that they will not allow us to get rid of the problem of communicative significance. For instance in the Jones-Smith example, both their respective ideas of the man on the train and of the man on television will have the property *being a man* as part of their satisfaction sets. Thus both would be right, given appeal to only such general modes was made. Hence also this latter Fregean success condition that appeals to specific modes of presentation that are intended to be conveyed by the speaker fails. In the following section I will propose an alternative Fregean condition which makes the modes of presentation that the hearer has to entertain not dependent on what the speaker intends him to entertain.

2.2 An Alternative Fregean Success Condition

In accounting for success in referential communication we have to distinguish between two kinds of referring acts, namely between *objectual referring acts* and *hearer addressing referring acts*, which can be defined as follows:

Definition 3: An *objectual referring act* is a referring act in which it is the aim of the speaker to refer the hearer to an object which is different from the hearer.

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[12] This was the problem of diversity faced by the Fregean account of communicative success as discussed in chapter 5.

Definition 4: A *hearer addressing referring act* is a referring act in which it is the aim of the speaker to refer the hearer to the hearer himself.

Obviously, most referring acts are objectual referring acts, yet in communication hearer addressing referring acts occur also quite frequently. What I want to propose is that hearer-addressing referring acts are only successful if the hearer comes to entertain an idea under the self mode of presentation, or, to put it differently, his self-idea.[13] That this must be the case follows from the general principle that an act of any kind is only successful if one achieves by it what one intended to achieve by it. Further evidence for this success condition derives from cases like the camera example where the hearer comes to entertain an idea that refers to the right object, but does not come to realize that he himself is the one who is being addressed. In this case, referential communication fails because the hearer does not come to think of the referent as the speaker intended him to think, namely under the self mode of presentation.

In a sense, the success condition for these hearer-addressing referring acts comes close to Recanati's proposal, although he would not accept it since self modes of presentation are not really modes that the speaker and the hearer will come to share when communication succeeds. The speaker will not think of the referent under the self mode of presentation, but only intend the hearer to think of the referent under this mode. Yet Recanati (1993) assumes that the modes of presentation entertained by the hearer must also be entertained by the speaker. As he says, they must be "*common* to both points of view" (p. 56). I think he runs into this difficulty because he accepts the Fregean picture of communication, according to which there must be a certain proposition or sense conveyed. Examples like those involving singular terms by which agents intend to address other agents show that this picture cannot be right. Evans (1982) in fact acknowledges this when he writes:

> "We do not have Frege's full model of the role of sense in communication; for we do not have the thesis that communication between speaker and hearer requires them to think of the referent *in the same way* ... the furthest we move away from the full model is with expressions like 'I' and 'You'." (p. 316)

It should be noted that these hearer-addressing referring acts play an important role in communication. Without them communication would not fulfill one of its important goals, namely to *initiate actions*. For, as Perry (1979) and others have argued, actions are based on thoughts or mental states which are in or under those self modes of presentation, or which are based on *self-thoughts* or *I-thoughts* as

[13] Kamp (1990) for instance, in his representational account of mental states, assumes that there is such an self-idea.

they have also been called. For instance, I walk to the window and open it because *I* want to do it. Thus, when I want another agent to open the window and I say to him 'Please can you open the window', he will only come to open it if he comes to think of my use of 'you' under the self mode of presentation.

The question is whether or not in those *objectual referring acts*, where some other object or practice of object-pretence is intended to be referred to, the hearers must also come to think of the referents in a certain way. Examples like the above Jones-Smith example seem to suggest this. Yet I do not think that all those examples presented in favor of the claim that modes of presentation have to be appealed to are really conclusive. Evans for instance argues that one will only understand the use of 'This man' where a man is referred to in a shared perceptual environment if one comes to think of the man under a perceptual mode, that is identifies him perceptually. This does not strike me as plausible, because the hearer might identify the man referred to by some other means. For instance he might know that there is only a man, namely Peter, in their shared perceptual environment and accordingly conclude that it must be Peter that the speaker intends to refer to.[14] Thus it seems that one can understand uses of demonstrative expressions 'This F' even if one does not come to identify or re-identify perceptually the object referred to by the speaker.[15] Likewise with regard to the Jones-Smith example one might argue that in certain circumstances Jones can be credited with understanding Smith's utterance of 'He is a stockbroker' even if he comes to take Smith to be referring to the man on the train. Imagine the case where Jones knows that the man on the train is identical with the man on television, and it is only Smith who does not know so. Even with regard to the case where both Jones and Smith assume that there are two men, and Jones takes Smith to be referring to the man on the train although he intends to refer to the man on television, one might say that referential communication succeeds. The problem here simply is that they do not *know* and also would not believe, in the light of what they know, that they understand each other. Yet I see no reason why agents must always know, or be inclined to believe, that they understand each other in order to be credited with understanding each other. The same line of reasoning applies to the Hesperus-Phosphorus example. Here one could also say that Rufus, who takes Brutus to have referred to the planet named 'Phosphorus', will have understood Brutus' utterance of 'Hesperus is very bright tonight' by which he intended to refer to the planet called 'Hesperus'. For it is Brutus' aim to refer Rufus to a certain planet, which he achieves even when Rufus comes to entertain only his Phosphorus idea. The point is that they do not

[14] Note, this does not mean that the hearer relies upon extraneous or abnormal ways of gaining knowledge, which Evans seems to dislike; see p. 314 in this regard.

[15] This claim was argued for in chapter 3.

know and would not believe that they have achieved communicative success here.

Nevertheless, there is also a sense in which it is right to say that in these latter cases communication fails. As has been pointed out before, communication is not only a means of conveying information about objects in the world or about practices of object-pretence, but also a *means of initiating actions*. Now, I think, it is just in this sense that referential communication fails in these examples, because actions would be set up at *cross purposes*. Imagine that Brutus said to Rufus: 'Observe Hesperus tonight and report all details to me tomorrow'. Rufus, who takes Brutus to have referred to Phosphorus, will not do what Rufus wanted him to do, namely to look out for the planet in the evening. Instead he will look out for it in the morning and report the 'wrong' things to Brutus the next day. Thus modes of presentation have to be appealed to in order to ensure that the actions are not set up at cross purposes. In particular, in order to ensure complete match in the kind of identificatory acts which the communicating agents would perform, they have to entertain ideas under the same modes of presentation. That seems rarely to be the case and sometimes not possible. For instance with regard to uses of the indexical 'I', where the speaker entertains an idea under the self mode of presentation, it would be wrong for the hearer to entertain an idea under exactly the same mode of presentation. Maybe it is better to say that what is required is a high degree of 'overlap' in modes of presentations since this will still guarantee 'smoothness in action'. Given we identify the mode of presentation 'grasped' by an idea with its satisfaction set, as done before, then these sets have to overlap to a high degree. Clearly, the question is what is meant here by a high degree. Is always the same degree of overlap required or does this depend on the particular communication context?

I am not sure what to say here! What might be proposed is to think of success in referential communication with regard to its action initiating side as a *matter of degree*. The highest degree would be achieved only if the entertained ideas are associated with the same modes of presentation, with exception of the indexical 'I', 'you'. A less high degree would be given only if there is a high amount of overlap in the associated modes and no conflict with other ideas which the communicating agents or some 'expert agents' possess. By a *unmediated conflict* I mean the case where one of the communicating agents S or S' possesses an idea i^*, let us say S possesses i^*-S, which (a) is of the same object (or practice of object-pretence) as are the ideas i-S and i-S' entertained by S and S' in referential communication, and (b) i^*-S is associated with a mode of presentation which shows more overlap with the mode of presentation associated with i-S' than does the mode of presentation associated with i-S. By a *mediated conflict* I mean the case where there is a third

expert agent S'' who belongs to the same speech community as do S and S' and who possesses two ideas i-S'' and i^*-S'', such that the following holds: (a) they are of the same object (or practice of object-pretence) but associated with different modes of presentation, (b) they are considered by S'' to stand for different objects (or practices of object-pretence), and (c) the mode of presentation associated with one of these ideas, let us say i-S'', overlaps to a high degree with the one associated with i-S but not with the one associated with i-S', and the reverse holds for i^*-S''.

Given such a *graded Fregean success condition* one can explain why communication fails in cases like the Hesperus-Phosphorus example or in Loar's train example. The problem is that although the communicating agents entertain ideas which are of the same object, the attached modes of presentation do not overlap in the required way. To start with, the associated modes are in none of the cases identical and thus there is no complete communicative success. But secondly, there is also no communicative success to a lower degree. For instance in the case of Smith and Jones talking on the train there is an unmediated conflict with the ideas they entertain. For each of them possesses two ideas, one for the man on the train and one for the man on television. Now in the case where Smith says 'He is a stockbroker', he entertains his TV-man idea, let us say i-Smith, whereas Jones comes to entertain his train-man idea, let us say i-Jones. The problem is that each of them possesses another idea which shows more overlap in its associated mode of presentation with the mode of presentation of the idea entertained by the other agent in communication than does the idea they entertain in communication. Given we identify the mode of presentation associated with an idea with the idea's satisfaction set, we could have in this example four ideas with the following satisfaction sets:

Sat(i-Smith) = {*being a man, being interviewed on TV, being a stockbroker*}
Sat(i'-Smith) = {*being a man, being on the train*}
Sat(i-Jones) = {*being a man, being on the train, reading a newspaper*}
Sat(i'-Jones) = {*being a man, being interviewed on TV*}

Smith entertains his idea i-Smith when making his utterance whereas Jones comes to entertain his idea i-Jones. The problem is that the link between those two ideas <i-Smith, i-Jones> stands in conflict with some other ideas they possess. For instance it stands in conflict with Jones' idea i'-Jones, since the satisfaction set of this idea shows more overlap with i-Smith, than does his idea i-Jones.

So far we have only considered the case where there is an unmediated conflict. Yet as has been pointed out above, the conflict which undermines communicative

success can also be mediated. Consider in this regard the case where Brutus only possessed a Hesperus idea and Rufus only a Phosphorus idea, and these are the only ideas they have of Venus. Further assume that their ideas have the following satisfaction sets:

Sat(*i*-Brutus) = {*being a planet, being called 'Hesperus'*}
Sat(*i*-Rufus) = {*being a planet, being called 'Phosphorus'*}

Clearly, in this case their satisfaction sets are not identical and thus there would not be complete communicative success in the action initiating sense. Yet there is no unmediated conflict as in the above example and thus it seems that there should be at least communicative success to a lower degree. Yet this would not be the case if there was some expert agent, let us say the astronomer Tacio, who belonged to Brutus' and Rufus' community and who possessed two ideas *i*-Tacio and *i'*-Tacio with the following satisfaction sets:

Sat(*i*-Tacio) = {*being a planet, being called 'Hesperus', appears in the evening*}
Sat(*i'*-Tacio) = {*being a planet, being called 'Phosphorus', appears in the morning*}

For in this case the link between *i-Brutus* and *i-Rufus* established in communication would stand in a mediated conflict with Tacio's respective ideas, and thus communication would fail.

Note, a Fregean success condition along the lines proposed above does not require the hearer to entertain a mode of presentation which matches the referential feature of the used singular term (as proposed by Evans and Recanati), nor a mode of presentation which matches the one intended to be conveyed by the speaker (as proposed by Recanati). For there can be a sufficient overlap in the modes of presentation entertained by the hearer and the speaker which guarantees 'smoothness' in action, without those further conditions being fulfilled. Consider in this regard again Donnellan's martini example where someone says: 'Who is this man drinking a martini?'. Now, a hearer can understand the referential use of 'this man drinking a martini' even if he does not think of this man as drinking a martini or as holding a martini glass. What would be required under the above proposal is only that there is some sufficient overlap in certain elements of the entertained modes of presentation. And this overlap can for instance be purely perceptual, in the sense that the hearer and the speaker think of this man perceptually in similar ways. For instance they locate him in the same position or at the same place which

already is sufficient to guarantee compatibility in action. Accordingly, the proposed Fregean success condition avoids also the problems faced by Evans' and Recanati's respective conditions.

To conclude, it seems that we have finally come up with a satisfying Fregean success condition which allows us to deal with the various problem cases. It manages to do so by appeal to modes of presentation. With regard to the hearer-addressing referring acts modes of presentation will always be appealed to in accounting for success, whereas with regard to the non hearer-addressing cases, modes of presentation will only come into play if one is interested in the action enabling or initiating side of referential communication. Here it makes sense to distinguish between different degrees of communicative success where the highest degree leads to a complete match in actions, whereas the lower degrees ensure a match sufficient for most purposes.

After having developed an alternative Fregean success condition which circumvents the problems faced by Evans' and Recanati's respective success conditions, let me finally summarize the overall account of success in referential communication that has been proposed in this chapter. It can be stated as follows:

The New Account of Success in Referential Communication: A referring act *RA* involving a speaker *S*, a hearer *H* and a singular term *t* is successful in the sense that the hearer has understood the speaker's referential use of *t* if and only if

(a) If RA is a perception-based referring act then the hearer comes to entertain an idea which is of the real object that the speaker's underlying idea is of;

If RA is an imagination-based referring act then the hearer comes to entertain an idea which relates to the practice of object-pretence that the speaker's underlying idea is related to;

If RA is a communication-based referring act then the hearer comes to entertain an idea which refers to the real object which the speaker's underlying idea is of, or which relates to the practice of object-pretence that the speaker's underlying idea is related to;

(b) If *RA* is a hearer-addressing referring act then the hearer comes to entertain an idea under the self mode of presentation;

If *RA* is an objectual referring act then the hearer comes to entertain an idea

under a mode of presentation which resembles (to a certain degree) the mode of presentation under which the speaker entertains his underlying idea.

I think that this account avoids the problems discussed in the previous chapters. Yet as it stand, many details still have to be filled in. More has to be said in regard to those practices of object-pretence which above have been identified simply with certain pairs consisting of a set of ideas and a set of properties. For instance it seems plausible that such practices can develop over time, which I have not taken into account so far. Further, it has to be made more precise what those self modes of presentation are, and also in which way modes of presentation account for actions. Various remarks have been made in those regards, but still many questions are left open. Yet tackling them is beyond the scope of this work, in which I have been concerned with the question of what success in referential communication consists in. And I think that in this regard the above accounts provides an outline of the right answer, even if some details still have to be filled in.

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Declaration

This thesis has been composed by myself and it has not been submitted in any previous application for a degree. The work reported within was executed by myself, unless otherwise stated.